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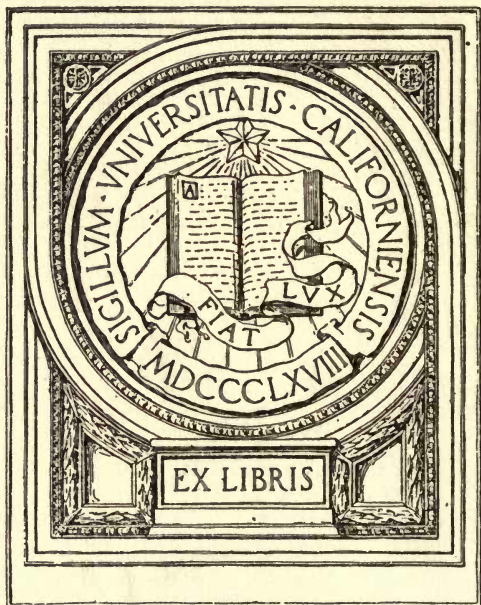
CATALOGUE
OF
MINERALS AND ORES
IN THE
STATE MINERAL CABINET,
SACRAMENTO, CAL.

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CATALOGUE

OF

MINERALS AND ORES

IN THE

California

" STATE MINERAL CABINET

AT THE

E. B. CROCKER ART GALLERY, SACRAMENTO, CAL.



SACRAMENTO:

STATE OFFICE, : : : J. D. YOUNG, SUPT. STATE PRINTING.
1888.

UNIVERSITY OF MICHIGAN

CATALOGUE

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MINERALS AND ORES

STATE MINERAL CABINET

1907

NEW YORK STATE LIBRARY



CATALOGUE

UNIVERSITY OF MICHIGAN LIBRARY

PREFACE.

Inasmuch as the STATE MINERAL CABINET is intended, in the main, for popular exhibition, the Trustees, after consultation with the State Mineralogist, Hon. William Irelan, Jr., and others, Trustees of the State Mining Bureau, have decided to arrange its contents on a system easily understood by those unversed in mineralogical science, and which is simple and easy for popular reference.

The minerals and ores in which the various metals, as GOLD, SILVER, COPPER, TIN, etc., are found, and from which they are extracted, have been grouped together under the head of their respective bases or METALS.

The SILICATES, crystalline forms of quartz, and other minerals of like general nature, have been grouped together, but arranged in several smaller natural sub-groups.

Minerals containing LIME (calcium), MAGNESIA, BARYTA, STRONTIUM, SODIUM, POTASSIUM, etc., are grouped under their several natural and evident subdivisions.

FOSSILS, ROCKS, and GEOLOGICAL specimens, together with those having special industrial interest, as CLAYS, OCHRES, ALKALINE DEPOSITS, and the like, are arranged together, without any attempt at systematic grouping; which, on account of the paucity and incompleteness of material, has been found impracticable.

It gives the Trustees pleasure to acknowledge valuable assistance, rendered by Hon. William Irelan, Jr. (State Mineralogist), and his assistant, Dr. Schneider, of the Mining Bureau, in identifying and naming the specimens.

E. J. GREGORY,
J. A. WOODSON,
GEORGE PYBURN,
Trustees.

SACRAMENTO, Cal., May, 1888.

CHAPTER LX.

An Act to provide for the removal of the mineral cabinet from the State Library.

[Approved March 9, 1887.]

The People of the State of California, represented in Senate and Assembly, do enact as follows :

SECTION 1. Within thirty days after the passage of this Act the Governor shall appoint a Board of Trustees, consisting of three persons, which shall be known as the Trustees of the Mineral Cabinet.

SEC. 2. It shall be the duty of said Board of Trustees, within thirty days after their appointment, to select a place in the Crocker Art Gallery building, where the said cabinet shall be located, and to remove the same there. The location shall be made with a view to the safety of said cabinet from destruction, and to keeping the same open for inspection by the public; but no expense to the State shall be incurred either for room rent or care of the same.

SEC. 3. This Act shall take effect from and after its passage.

PLATINUM GROUP.

1. Platinum and Iridium (two bottles). Southern OREGON.
 2. Iridosmium. Placer County, California.
 3. Platinum, with magnetic iron sand and gold. California.
 4. Platinum. Ural.
-

GOLD AND GOLD ORES.

1. Fine specimen from Sonora, MEXICO.
2. From Mariposa County.
3. From Grass Valley, Nevada County.
4. Polished specimen. Grass Valley, Nevada County.
5. From ? ?.
6. Gold quartz gangue. Mariposa County.
7. From Tuolumne County.
8. Gold on quartz. Trinity County.
9. "Croppings" from El Dorado County.
10. Gold, with copper pyrites; malachite. El Dorado County.
11. Gold, with oxide of iron in quartz. Green Emigrant Lode, Auburn, Placer County.
12. A fine specimen from Scott's River, Trinity County.
13. Gold in quartz. North Fork American River.
14. Gold in quartz. Ries Mine, Plumas County.
15. Gold in oxide of iron. Mariposa County.
16. Gold. Sarahville, Plumas County.
17. Gold. Amador County.
18. Gold. Nevada County.
19. Gold quartz gangue. Hayward Mine.
20. Gold, with iron pyrites in quartz.
21. Half-polished specimen gold quartz. Grass Valley, Nevada County.

22. From Amador County.
23. Gold in quartz.
24. Gold in ancient river cement—blue gravel. Cherokee Flat.
25. Gold in "blue lead" cement. Oroville.
26. Gold in cement.
27. Gold, with iron pyrites. Del Norte County.
28. Gold in talcose slate. Amador County.
29. Gold-bearing pyrites. Lone Jack, Nevada County.
30. Auriferous pyrites. Spring Hill, Amador County.
31. Gold in mispikel, from "49 and 56." Oroville, Butte County.
32. Native gold; iron pyrites; calcite. Silver Mountain, Alpine County.
33. Crystallized gold on iron pyrites. (Very rare.)
34. Gold on quartz. Empire Mine, Amador County.
35. Gold on calcite. Pilot Hill, El Dorado County.
36. Gold on pyrites. Mariposa County.
37. Auriferous pyrites. Amador County.
38. Gold quartz. Grizzly, Eureka, Butte County.
39. Gold on iron pyrites. Allison's Ranch, Grass Valley, Nevada County.
40. Gold, with hematite; brown iron ore. Mariposa County.
41. Gold, with galenite, in a ferruginous gangue. Amador County.
42. Gold in decomposed iron sulphurets. Placer County.
43. A poor specimen of gold quartz. Oakland.
44. Auriferous pyrites.
45. Auriferous pyrites. José Valley, Amador County.
46. Gold-bearing quartz. Amador County.
47. Gold-bearing quartz, with mariposite. Mariposa County.
48. Free gold in quartz. Oakland, Alameda County.
49. Gold, with quartz; slate. Sutter Creek, Amador County.
50. Gold in pitch iron ore. Amador County.
51. Gold on quartz. Sutter Creek, Amador County.
52. Auriferous pyrites. with galenite. Amador County.
53. Polished specimen of gold quartz. Tuolumne County.
54. Gold on iron ore. Owens River.
55. Gold, iron pyrites; galenite. Oroville.
56. Gold-bearing quartz. North Fork Yuba.

57. Gold-bearing quartz. Brown's Valley (Pennsylvania Mine), California.
58. Auriferous pyrites. REESE RIVER.
59. Gold and chalc-pyrites in quartz.
60. Gold quartz. Grizzly Flat, Tuolumne County.
61. Auriferous pyrites; galenite. (Said to contain \$10,000 per ton.) Wide West Mine, Esmeralda County, NEVADA.
62. Gold quartz. Pine Grove Mine, Esmeralda County, NEVADA.
63. Gold-bearing pyrites; gypsum. Pine Grove Mine, Esmeralda County, NEVADA.
64. Gold in decomposing pyrites. Sonora, Tuolumne County.
65. Gold in quartz. Eureka South Butte, County.
66. Gold in quartz. Salamander Mine, Calaveras County.
67. Gold in quartz. Salamander Mine, Calaveras County.
68. From Yuba County.
69. Hornblende, carrying gold and silver. Mokelumne Hill.
70. Gold and pyrites in quartz. Sonora, Tuolumne County.
80. Marcasite, with gold; galenite.
81. Gold in "rotten" quartz; sulphurets of iron. Charleston Mine, Calaveras County.
82. Auriferous pyrites. Mariposa.
83. Auriferous quartz; chalcopyrites. Blake Lead, Mariposa County.
84. Auriferous quartz. Salamander Mine, Calaveras County.
85. Auriferous quartz. Independence Mine, Butte County.
86. Gold, with decomposed pyrites. KERN RIVER.
87. Gold-bearing pyrites. Whitlock Creek, Mariposa County.
88. Auriferous pyrites. Calaveras County.
89. Gold in arsenical pyrites. Rock River Ledge, Table Mountain, Butte County.
90. Gold-bearing quartz. Salamander Mine, Calaveras County.
91. Gold pyrites on quartz. Mariposa County.
92. Gold pyrites on quartz. Mariposa County.
93. Auriferous quartz. Butte County.
94. Gold quartz. Downieville, Butte County.
95. Gold quartz. Downieville, Butte County.
96. Gold quartz. Rattlesnake, Brown's Valley, Butte County.
97. Gold pyrites. Blue Hill, Calaveras County.

98. Talcose slate, with gold and pyrites. Aystell Mills, Calaveras County.
99. Auriferous pyrites. Oroville.
100. Hematite; limonite. Calaveras County.
101. Auriferous pyrites. Grass Valley, Nevada County.
102. Arsenical pyrites containing gold. El Dorado County.
103. Gold-bearing quartz; iron pyrites; sphalerite. North Star Lead, Grass Valley, Nevada County.
104. "Ribbon rock;" gold-bearing quartz, with dendrites. Grass Valley, Nevada County.
105. Gold quartz. Nevada County.
106. Gold on quartz. Plumas County.
107. Galena and pyrites, containing gold. Eagle Mine, Grizzly Flat, El Dorado County.
108. Gold, with pyrites, in talcose seam. Grass Valley, Nevada County.
109. Gold, with traces of copper. Ophir, Grass Valley, Nevada County.
110. Iron and copper pyrites containing gold. El Dorado County.
111. Iron pyrites containing gold.
112. Gold, with pyrites, in quartz. Grizzly Flat, El Dorado County.
113. Auriferous pyrites (\$40 to \$200 per ton). Mount Quartz, El Dorado County.
114. Auriferous pyrites. Allison's Ranch, Grass Valley, Nevada County.
115. Gold quartz. Placerville.
116. Gold quartz. Hogg's Diggings, El Dorado County.
117. Gold quartz; chalcopyrites. Allison's Ranch, Grass Valley.
118. Crystallized gold in quartz. Allison's Ranch, Grass Valley.
119. Gold, with pyrites, and molybdenite. Excelsior Diggings, Nevada County.
120. "Ribbon rock;" free gold; pyrites; galena. Grass Valley.
121. Gold and silver. Jackson Mine, Amador County.
122. Gold collected in ravines, with quicksilver.

123. Iron pyrites containing gold on quartz. REESE RIVER.
124. Gold on quartz. Sonora, MEXICO.
125. From Mather's Creek, El Dorado County.
126. Gold pyrites.
127. Gold quartz. Grizzly Flat, El Dorado County.
128. Gold quartz. Placerville, El Dorado County.
129. Gold quartz. Manning's Mountains.
130. Auriferous pyrites.
131. Gold; docite. Sierra County.
132. Gold. Prairie City, Sacramento County.
133. Gold. Prairie City, Sacramento County.
134. Gold. Prairie City, Sacramento County.
135. Gold. Prairie City, Sacramento County.
136. Gold. Prairie City, Sacramento County.
137. Gold quartz, after being stamped or crushed, Grass Valley.
138. Pure gold.
139. Pure gold. Siskiyou County.
140. Pure gold. Siskiyou County.
141. Pure gold. Siskiyou County.
142. Pure gold. Siskiyou County.
143. Pure gold. Siskiyou County.
144. Gold quartz. Placer County.
145. Gold. Siskiyou County.
146. Arsenical pyrites, with gold.
147. Gold quartz, with pyrites. Placer County.
148. Gold, with manganic dendrites. Contraband Mine, Placer County.
149. Pyrites containing gold. Excelsior Mine, Placer County.
150. Gold quartz. Placerville.
151. Copper ore containing free gold. Donneberg, Brown's Valley, Sierra County.
152. Free gold in quartz. Chipp's Ledge, Downieville.
153. Free gold in quartz. Von Humboldt Mine, Sierra County.
154. Copper ore containing gold. Sierra County.
155. Arsenical pyrites containing gold. Sierra County.
156. Nodule of iron pyrites, containing gold. Chipp's Flat, Sierra County.
157. Gold-bearing pyrites.

158. Gold-bearing pyrites and galena.
159. Auriferous quartz and pyrites.
160. Auriferous pyrites. Placer County.
161. From Excelsior Mine, Placer County.
162. Decomposing iron pyrites containing gold. Stewart Flat, Placer County.
163. Molybdenite, with gold.
164. Gold. Hot Springs, MONTANA.
165. Gold in quartz. IDAHO.
166. Gold. Witlock Mine, MONTANA.
167. Gold. MONTANA.
168. Gold. MONTANA.
169. Gold, with carbonate of copper. Morning Star, IDAHO.
170. Electrum (gold and silver) in decomposed ferruginous mass. Oroyhee.
171. Gold from Queen Charlotte Island, RUSSIAN AMERICA.
172. Gold. Webster Lode, Nevada Creek, MONTANA.
173. Gold. MONTANA.
174. Gold. Fraser River, BRITISH AMERICA.
175. Gold from BRAZIL.
176. Gold, with silver. Oro Fino Mine, IDAHO.
177. Gold quartz of the Amazon, SOUTH AMERICA.
178. Gold in decomposed pyrites. La Paz, MEXICO.
179. Gold-bearing quartz. AUSTRALIA.
180. Gold-bearing quartz. CANADA.
181. Ferruginous rock containing gold. Dacota Ledge, East Bannock, IDAHO.
182. Gold in quartz (porous, with angular impressions of crystals). IDAHO.
183. Gold. MONTANA.
184. Gold, silver, and copper. Silver Legion, IDAHO.
185. Gold. MONTANA.
186. Hematite containing gold.
187. Native gold. MONTANA.
188. Gold, with malachite (carbonate of copper). New York, IDAHO.
189. Gold and silver. Oro Fino, Oroyhee.
190. Ore containing gold, silver, and copper. Oroyhee.

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191. Gold quartz. AUSTRALIA.
 192. Ferruginous quartz containing gold. Dakota, No. 1, IDAHO.
 193. Gold. Whisky Gulch, IDAHO.
 194. Gold containing silver. Oro Fino, IDAHO.
 195. Gold and silver; chrysocolla (red oxide of copper). Morning Star, IDAHO.
 196. Gold-bearing quartz. Oro Fino, IDAHO.
 197. Gold and silver ore. Morning Star, IDAHO.
 198. Copper ore containing gold. Oro Fino, IDAHO.
 199. Electrum (gold and silver), in quartz. Oro Fino, IDAHO.
 200. Oxide of iron, containing gold and silver. Rosa Mink Mine, Humboldt, NEVADA.
 201. Gold in porous quartz. Imperial Hill, NEVADA.
 202. Gold (with specks of ?). From Real del Monte, Aurora, NEVADA.
 203. From Cræsus Mine, Humboldt, NEVADA.
 204. Decomposed pyrites containing gold. Esmeralda County, NEVADA.
 205. From Echo District, Humboldt, NEVADA.
 206. Gould and Curry Mine, NEVADA.
 207. Gold. Gold Hill.
 208. Gold in markasite and quartz. Old Virginia.
 209. Iron oxide and galena, with gold. Humboldt, NEVADA.
 210. Gold quartz.
 211. Silver glance (argentite), containing gold. Hale and Norcross, NEVADA.
 212. Ferruginous quartz, with gold, and containing silver also.
(This is said to be the first specimen discovered on Gold Hill ?)
 213. Electrum (gold and silver). Gold Hill.
 214. Silver ore containing gold. Eclipse, Humboldt, NEVADA.
 215. Silver ore containing gold. California Mine, NEVADA.
 216. Limonite (brown ochre—kidney iron ore), containing gold.
Humboldt, NEVADA.
 217. Auriferous iron pyrites. Carson Valley.
 218. Hydrated oxide of iron containing gold. Gold Hill, NEVADA.

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219. Gold in iron pyrites. El Dorado District, Humboldt, NEVADA.
 220. Gold-bearing pyrites. Pike's Peak, COLORADO.
 221. Pyrites, containing gold, in quartz. Humboldt, NEVADA.
 222. Gold and silver ore. Morning Star, Humboldt, NEVADA.
 223. Hematite, with gold. Central Pacific Railroad, NEVADA.
 224. Gold in quartz; chlorite. Placerville.
 225. Gold in mica. Coultersville.
 226. Nagyagite—gold and lead. Nagyag, TRANSYLVANIA.
 227. Gold in volcanic glass (very rare). Colusa County.
 228. Gold. Colusa County.
 229. Gold on jasper. Placer County.
 230. Gold.
 231. Sand, containing gold.
 232. Gold quartz.
 233. Gold quartz. AUSTRALIA.
 234. Electrum—gold and silver. Gold Hill, NEVADA.
 235. Gold. AUSTRALIA.
 236. Gold. Reese River, NEVADA.
 237. Gold. IDAHO.
 238. Gold quartz. Brown's Valley, NEVADA.
 239. Gold. MONTANA.
 240. Gold crystallized on quartz. Sailor Diggings, OREGON.
 241. Gold quartz. AUSTRALIA.
 242. From Meadow Creek, MONTANA.
 243. From Meadow Creek, MONTANA.
 244. Gold quartz. San Rafael Valley, Lower California.
 245. Specimen from MONTANA.
 246. From Stirling, MONTANA.
 247. Gold. Yuba County.
 248. Gold. Stirling, MONTANA.
 249. Gold specimen from ?
 250. From White Grove, NEVADA.
 251. From Gold Hill, NEVADA.
 252. Gold. Pine Grove, Esmeralda County, NEVADA.
 253. Gold, copper, iron. Sonora, MEXICO.
 254. Gold from Monitor Mine, ARIZONA.
 255. Gold. Minnesota Ledge, IDAHO.

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256. Electrum (gold and silver) in ferruginous quartz. Oro Fino, IDAHO.
257. Polished gold quartz. North Star, Grass Valley.
258. From Pine Grove, Esmeralda County, NEVADA.
259. Electrum (gold and silver). Silver District, Humboldt, NEVADA.
260. Gold, with antimony. Humboldt County, NEVADA.
261. Gold quartz. San Diego.
262. Electrum (gold and silver). Gold Hill, NEVADA.
263. Gold in limonite (brown ochre—kidney iron ore). East Bannock, Dakota, No. 1.
264. Gold quartz. Eagon Cañon, Esmeralda County, NEVADA.
265. Gold. Pine Grove, Esmeralda County, NEVADA.
266. Auriferous pyrites, with galena. Table Mountain, Tuolumne County.
267. Gold quartz. Silver Corral, IDAHO.
268. Gold in quartz. Wasatch Mountains, IDAHO.
269. From Grass Valley.
270. Gold. Prairie City, Sacramento County.
271. Gold. North Star Mine, Grass Valley.
272. Gold, with copper. IDAHO.
273. Gold, with silver. Oroyhee, IDAHO.
274. Auriferous pyrites. Grass Valley.
275. Auriferous pyrites. Centreville, El Dorado County.
276. Gold quartz. Kern River, California.
277. Gold on decomposed iron pyrites.
278. Gold quartz, with pyrites. Knickerbocker Mine.
279. Auriferous pyrites. Grass Valley.
280. Gold quartz. Nevada County.
281. Gold quartz. Pilot Hill, El Dorado County.
282. Gold quartz. Grass Valley.
283. Gold quartz. Grass Valley.
284. Gold quartz. Grass Valley.
285. Gold quartz. Grass Valley.
286. Gold in pyrites and zinc blende.
287. Gold quartz, with pyrites and blende.
288. Gold quartz. Latrobe, El Dorado County.
289. Auriferous pyrites. Sarahville, Placer County.
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290. Gold quartz. White Creek, El Dorado County.
291. Gold quartz. Latrobe, El Dorado County.
292. Gold quartz. Volcano, Amador County.
293. Chalcopyrite (copper pyrites), with gold. Grass Valley.
294. Gold on quartz. Grass Valley.
295. Auriferous pyrites. Placer County.
296. Gold quartz.
297. Gold in quartz. American River, El Dorado County.
298. Gold quartz.
299. Gold quartz. Placer County.
300. Gold quartz. Placer County.
301. Gold. Red Jacket, IDAHO.
302. Gold on chrysocolla and bornite. Empire, IDAHO.
303. Gold quartz. Grass Valley.
304. Gold quartz.
305. Gold quartz, with chlorite. Placer County.
306. Gold quartz. Allison's Ranch, Nevada County.
307. Gold quartz. Grass Valley.
308. Gold quartz. Grass Valley.
309. Half polished gold quartz. Amador County.
310. Gold quartz. Grass Valley.
311. Porous quartz, with gold. Grass Valley.
312. Gold on quartz.
313. Gold on quartz. Ural.
314. Gold on quartz.
315. Gold in cement conglomerate.
316. Gold in cement conglomerate.
317. Conglomerate cement rich in gold.
318. Gold in clay and sand.
319. Vein quartz, with free gold. Grass Valley.
320. Gold quartz. Norenbagua, Forest Spring, Nevada County.
321. Gold washings—placer gold—(in bottle).
322. Gold, with quartz (in bottle).
323. Gold in talcose slate.
324. Honeycomb quartz bearing free gold.
325. Gold ore. Prairie City, Sacramento County.
326. Gold in slate rock.
327. Gold in gravel. California.

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328. Honeycomb quartz bearing gold. California.
 329. Gold in silver ore. California.
 330. Gold in silver ore. California.
 331. Gold in yellow jasper (very rare). Mariposa County.
 332. Gold on quartz. California.
 333. Gold on quartz, with sulphurets of iron.
 334. Gold on sphalerite (zinc blende).
 335. Gold on quartz. Golden Gate Mine, Amador County.
 336. Gold in quartz. California.
 337. Gold in quartz. North Star, Nevada County.
 338. Gold quartz. California.
 339. Gold quartz. California.
 340. Gold in calcite (calcareous spar), *rare*. Mariposa County.
 341. Gold with galena and carbonate of copper. Nevada County.
 342. Gold with tetrahedrite (gray copper—copper, silver, anti-
mony, and sulphur). Mariposa County.
 343. Gold, with pyrites, in quartz. Mariposa County.
 344. Vein of pyrites in quartz with gold.
 345. Gold quartz. Golden Gate Mine, Amador County.
 346. Gold in a chlorite shale. Sierra County.
 347. Gold, with quartz and talcose slate. California.
 348. Gold in talcose slate. Angel's Camp, Calaveras County.
 349. Gold. Amador County.
 350. Gold in decomposed iron ore. Gold Hill, Nevada County.
 351. Gold quartz. New York Mine, Grass Valley.
 352. Gold, with molybdenite (sulphuret of molybdenum). Ex-
celsior Mine.
 353. Electrum (native alloy of gold and silver). Poorman's
Mine, IDAHO.
 354. Beautiful wire-gold nugget, found in French Gulch, El
Dorado County, in 1851.
 355. Nugget found in early times on the headwaters of Feather
River.

SILVER ORES.

1. Silver in chalcopryrite (copper pyrites). Gold Hill, NEVADA.
2. Silver and gold ore; carb. copper. Moonlight Mine, Humboldt County.
3. Silver and gold ore; oxyd of lead and copper. Neptune Mine, Humboldt County.
4. Silver and gold. Red Mountain Mine, Silver Peak, NEVADA.
5. Silver and gold. Vanderbilt Mine, Silver Peak, NEVADA.
6. Silver ore, with native (metallic) silver. Elko, NEVADA.
7. Silver ore, with gold; chalcopryrite; galenite. Gould & Curry, NEVADA.
8. Sulphurets of silver; gold. Belcher Mine, NEVADA.
9. Silver ore. Comstock Lead.
10. Silver ore. Hale & Norcross Mine.
11. Electrum; galenite. Ophir Mine.
12. Silver ore. Comstock.
13. Native silver; copper. Del Norte County.
14. Polished silver ore.
15. Argentiferous copper ore. Lone Pine, Inyo County.
16. Silver lead ore. Belwort, Owens River.
17. Argentiferous carbonate of lead. La Fieda, Owens River.
18. Silver ore. Caro, Owens River.
19. Argentiferous galenite; cerussite. Comanche, Owens River.
20. Silver ore. Quintal.
21. Argentiferous copper ore. La Fieda, Inyo County.
22. Polished argentiferous copper ore.
23. Silver ore. Amador County. (Poor.)
24. Silver ore. Silver Mountain, Alpine County.
25. Silver ore.
26. Partzite (antimony, copper, silver, iron), worked for silver. Mono County, California.
27. Silver ore; sulphurets. Comstock Lode, NEVADA.
28. Silver ore. From Mazatlan, MEXICO.
29. Silver ore. La Paz, MEXICO.

30. Cerargyrite (chloride of silver) on tetrahedrite. UTAH.
31. Sulphurets of silver. Copala, MEXICO.
32. Native silver on tetrahedrite and chrysocolla. Potosi, MEXICO.
33. Sulphurets of silver. Silver City, IDAHO.
34. Cerargyrite on cerussite. MONTANA.
35. Silver ore; carbonate of copper. Miami Mine, Humboldt County, NEVADA.
36. Silver ore. Oro Fino Mine, IDAHO.
37. Silver ore. MONTANA.
38. Silver ore; lead. Mazatlan, MEXICO.
39. Sulphuret of silver.
40. Pyrargyrite (ruby silver), and stephanite (brittle silver). North Star Mine, Reese River.
41. Argentite dendrytes. Alcoran Mine, MEXICO.
42. Silver and iron oxide. Bannock, MONTANA.
43. Silver in cerussite (carbonate of lead). Bannock, MONTANA.
44. Silver, lead ore. Cottonwood, UTAH.
45. Silver bar. Sander Hill, Reese River.
46. Silver ore. White Pine, NEVADA.
47. Silver; copper ore. Excelsior, NEVADA.
48. Pyrargyrite and proustite (light ruby-silver). Reese River.
49. Silver ore. Yankee Claim, Carson, NEVADA.
50. Silver ore. American Flag, Carson, NEVADA.
51. Sulphurets of silver (rich). Comstock Lode.
52. Sulphurets of silver (rich). Comstock.
53. Pyrargyrite and proustite. Reese River.
54. Silver ore. Pioche Mine, Ely District, NEVADA.
55. Cerargyrite. White Pine, NEVADA.
56. Silver; lead; chrysocolla (silicate of copper). Humboldt County, NEVADA.
57. Partzite; stedefeldite (antimony); copper; silver; iron. Comanche Mine, Mono County.
58. Silver; copper. Alpha Mine, Humboldt County, NEVADA.
59. Silver ore, with topaz quartz. Ophir Mine, NEVADA.
60. Tetrahedrite (sulph-antimoniate of copper). Worked for silver. Reese River.
61. Cerargyrite. White Pine, NEVADA.

62. Silver ore. White Pine, NEVADA.
63. Silver ore. Reese River.
64. Argentite (silver glance, sulphuret of silver), and galenite.
Gould & Curry Mine.
65. Silver ore from Crown Point Mine, NEVADA.
66. Pyrargyrite. Reese River.
67. Silver ore. Lone Star Mine, Humboldt County, NEVADA.
68. Silver ore. Lone Star Mine, Humboldt County, NEVADA.
69. Silver quartz. Gould & Curry Mine.
70. Sulphurets of silver. Gould & Curry Mine.
71. Sulphurets of silver. Mexican Mine, Comstock.
72. Sulphurets of silver. Ophir Mine, Comstock.
73. Stephanite (brittle silver ore). NEVADA.
74. Silver ore. Tarshed Mine, Alpine County.
75. Silver ore. Tarshed Mine, Alpine County.
76. Silver ore. Silver Mountain, Alpine County.
77. Cerargyrite. MEXICO.
78. Silver, with galenite. Silver Mountain, Alpine County.
79. Silver ore. Reese River.
80. Cerargyrite (chloride of silver; also called horn silver),
with malachite. White Pine, NEVADA.
81. Cerargyrite and sulphuret of silver. White Pine, NEVADA.
82. Pyrargyrite; stephanite; tetrahedrite. White Pine, NEVADA.
83. Silver, with gold. Silver Mountain, Alpine County.
84. Silver ore. Cayuga Mine, Silver Mountain.
85. Silver carrying gold. Silver Mountain, Alpine County.
86. Silver carrying gold. Silver Mountain, Alpine County.
87. Silver carrying gold. Silver Mountain, Alpine County.
88. Stephanite; polybasite. Silver Mountain.
89. Silver ore. St. Charles.
90. Silver ore carrying gold. Silver Mountain.
91. Silver ore. Silver Mountain.
92. Silver ore. I. A. L. Mine, Silver Mountain, Alpine County.
93. Silver ore. I. A. L. Mine, Silver Mountain, Alpine County.
94. Silver ore. Moantowe, Humboldt County, NEVADA.
95. Silver ore. Mill City, Humboldt County, NEVADA.
96. Stephanite crystals; pyrargyrite. White Pine, NEVADA.
97. Silver ore (?). Silver Mountain, Alpine County.

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98. Sulphuret of silver. Silver Mountain, Alpine County.
 99. Cerargyrite, with copper and sulphurets of silver. Snow-storm, Humboldt County, NEVADA.
 100. Cerargyrite on other silver ore. White Pine County, NEVADA.
 101. Sulphuret of silver. White Pine, NEVADA.
 102. Silver ore. Montezuma, Humboldt County, NEVADA.
 103. Silver ore; lead. Battle Mountain, Humboldt County, NEVADA.
 104. Silver ore. White Pine, NEVADA.
 105. Silver ore; chloride and sulphide of silver. NEVADA.
 106. Ruby silver; argentite; tetrahedrite. Belmont, Humboldt County, NEVADA.
 107. Silver ore. Sheba Mine, Humboldt County, NEVADA.
 108. Argentiferous galenite.
 109. Silver, with gold in zinc blende.
 110. Argentiferous galenite. White Pine, NEVADA.
 111. Silver ore; copper; lead. Pride of the Mountain, Winnemucca, NEVADA.
 112. Silver ore; galena. May Queen, Echo, Humboldt County, NEVADA.
 113. Silver ore. White Pine, NEVADA.
 114. Antimonial silver; sphalerite (zinc blende); tetrahedrite. Sheba Mine, Humboldt County, NEVADA.
 115. Tetrahedrite (argentiferous gray copper).
 116. Pyrargyrite; argentite. White Pine, NEVADA.
 117. Silver ore; chloride and sulphide. White Pine, NEVADA.
 118. Silver ore. Humboldt County, NEVADA.
 119. Silver ore; galena. White Pine, NEVADA.
 120. Cerargyrite and carb. of copper; silver ore. White Pine, NEVADA.
 121. Cerargyrite; galena; carb. copper; silver ore. White Pine, NEVADA.
 122. Silver ore; galena. East Range, Humboldt County, NEVADA.
 123. Silver ore. Rattlesnake, Humboldt County, NEVADA.
 124. Tetrahedrite (Fahlerz). Great Eastern, Humboldt.
 125. Cerargyrite in quartz. White Pine, NEVADA.

126. Cerargyrite; malachite; cerussite. Chloride Flat, White Pine.
127. Silver ore. Moonlight Mine, Humboldt.
128. Cerargyrite; galenite. White Pine.
129. Argentite, with copper in limestone. White Pine, NEVADA.
130. Silver ore. Battle Mountain, Humboldt County, NEVADA.
131. Silver ore. Mineral Hill, Humboldt County, NEVADA.
132. Silver ore. Sisson's Mine, Eastern NEVADA.
133. Silver on calcite. Humboldt River, NEVADA.
134. Silver ore. Montezuma Mine, Humboldt County, NEVADA.
135. Silver and copper ore, with lead. Humboldt.
136. Silver and copper ore. Manitowoc, Humboldt.
137. Pyrargyrite. White Pine, NEVADA.
138. Silver in zinc blende (sphalerite), lead, antimony, and copper. Sink of Carson, UTAH.
139. Argentiferous copper ore; malachite; azurite. Yankee Lode, Humboldt.
140. Cerargyrite. Sinaloa Mine, Trinidad District, Humboldt County, NEVADA.
141. Silver, with gold (gold, \$50; silver, \$257). Battle Mountain, Humboldt.
142. Decomposed ore, gold, silver, lead, copper, arsenic, and iron. Little Giant, Battle Mountain, Humboldt.
143. Ore; copper, silver, lead. Humboldt.
144. Ore; copper, silver (cerargyrite). Sinaloa Mine, Humboldt County, NEVADA.
150. Stephanite (brittle silver; silver, with antimony). Highland Mary, Humboldt.
151. Tetrahedrite (Fahlerz). Sheba Mine, Humboldt.
152. Tetrahedrite (Fahlerz). Rising Star Mine.
153. Silver ore. Highland Chip, Humboldt, NEVADA.
154. Silver copper ore; cerargyrite. Sinaloa Mine, Humboldt.
155. Cerargyrite. Mazeppa Mine, White Pine, NEVADA.
156. Polytelite (Fahlerz); azurite; malachite. Humboldt, NEVADA.
157. Silver ore; sulphuret of antimony; lead. Humboldt County.
158. Cerargyrite on carb. of copper. Evening Star, Trinidad District, Humboldt.

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159. Silver ore; quartz. White Pine, NEVADA.
 160. Silver ore; quartz. Eberhardt Mine, White Pine.
 161. Silver ore; quartz. Meadow Valley, Eli District, NEVADA.
 162. Sulphuret of silver. Arkansas District, Humboldt.
 163. Silver ore; cerargyrite; carb. lead. Sarahnaget, NEVADA.
 164. Silver ore; quartz. White Pine.
 165. Tetrahedrite, with cerargyrite. Sinaloa, Trinidad District, Humboldt.
 166. Cerargyrite; quartz. White Pine.
 167. Silver and copper. Humboldt.
 168. Tetrahedrite. Alpha, Humboldt.
 169. Galena and zinc blende, with silver. Mammoth District, Humboldt.
 170. Cerargyrite; calcite. White Pine.
 171. Silver ore. Scottish Chief, Humboldt.
 172. Stephanite (brittle silver). Oro Fino, Humboldt.
 173. Silver ore. Santa Riveria, NEVADA TERRITORY.
 174. Silver ore. Ely District, NEVADA.
 175. Silver ore containing copper. Alpha Mine, Humboldt.
 176. Silver sulphurets. Aurora, NEVADA.
 177. Silver sulphurets. Reyer's Claim, Carson.
 178. Silver ore. Pioche Ledge, Meadow Valley, Lincoln County, NEVADA.
 179. Silver sulphurets. Amador Lode, NEVADA.
 180. Silver ore. Mexican Mine, Comstock.
 181. Silver ore, decomposed rock (black rock).
 182. Pyrargyrite on tetrahedrite. Minerva Mine, Smoky Valley, NEVADA.
 183. Silver ore (base metal). Ely District, NEVADA.
 184. Silver in limestone. White Pine, NEVADA.
 185. Cerargyrite and carb. of copper on quartz.
 186. Silver ore. White Pine.
 187. Silver ore. White Pine.
 188. Silver ore. Silver Peak, NEVADA.
 189. Silver ore. Belcher Mine.
 190. Silver ore. California Mine.
 191. Silver ore. Confidence Mine.
 192. Stephanite. Ophir Mine.

193. Silver ore. Chollar Mine.
194. "Croppings." Savage Mine.
195. Silver ore. East Ledge, Gold Hill, NEVADA.
196. Cerargyrite; silver ore. Humboldt.
197. Silver, with copper. Alpha, Humboldt.
198. Argentite. Silver Mountain, NEVADA.
199. Ore containing native (metallic) silver. Real Del Monte, Aurora, NEVADA.
200. Ore containing lead, copper, silver. Pyramid Lake, NEVADA.
201. Sulphurets of silver with antimonial ochre. Silver Peak, NEVADA.
202. Sulphurets of silver. Kearsarge District, NEVADA.
203. Sulphurets of silver. Twin River District.
204. Sulphurets of silver. Pioche, NEVADA.
205. Sulphurets of silver. Humboldt.
206. Sulphurets of silver. Cherokee, Carson, NEVADA.
207. Cerargyrite on quartz, with limonite (brown ochre).
208. Ore containing silver. Carleton, NEVADA.
209. Ore containing silver. Ruby District, NEVADA.
210. Cerargyrite, with malachite; chrysocolla. Columbus District, NEVADA.
211. Conglomerate carrying silver. Honey Lake, NEVADA.
212. Ore from Ruby District, NEVADA.
213. Ore from Reese River.
214. Argentiferous carb. of lead, with copper. Beck Mine, Meadow Valley, Lincoln County, NEVADA.
215. Argentite, with iron pyrites. Silver Mountain, NEVADA.
216. Ore containing \$160 to ton of silver. Excelsior District, NEVADA.
217. Silver ore; chalcopryrite.
218. Native silver on galena. IDAHO.
219. Cerargyrite. Poorman's Lode, IDAHO.
220. Cerargyrite and argentite. Poorman's Lode, IDAHO.
221. Sulphuret of silver on quartz. Silver City, IDAHO.
222. Sulphuret of silver on quartz. Silver City, IDAHO.
223. Tetrahedrite (gray copper). Rising Star, IDAHO.
224. Cerargyrite. Poorman's Lode.
225. Sulphurets of silver. Ida Elmore, Silver City.

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226. Silver ore. Rising Star.
227. Silver ore. Bull Run District, Humboldt.
228. Silver ore. Silver City.
229. Silver ore. Silver City.
230. Silver ore. Fort Wagner.
231. Cerargyrite. Poorman's Lode.
232. Silver, with carb. copper. Morning Star.
233. Electrum (gold and silver). Oro Fino, IDAHO.
234. Cerargyrite; argentite. Poorman's Lode.
235. Cerargyrite; malachite. IDAHO.
236. Sulphurets of silver and malachite. Empire Mine, IDAHO.
237. Cerargyrite. Poorman's Lode.
238. Cerargyrite and argentite. IDAHO.
239. Cerargyrite, with carb. copper. Empire Mine.
240. Sulphurets. Silver City.
241. Electrum (silver and gold). IDAHO.
242. Electrum (silver and gold). IDAHO.
243. Silver slag. Ida Elmore, IDAHO.
244. Silver ore. MONTANA.
245. Silver ore. MONTANA.
246. Silver ore, "sulphurets." Bannoho, MONTANA.
247. Silver ore, \$1,000 per ton. MONTANA.
248. Silver ore. MONTANA.
249. Silver ore. Ganymede, Silver Star District, MONTANA.
250. Silver ore. Rattlesnake District, MONTANA.
251. Silver ore, \$800 per ton. MONTANA.
252. Silver ore, \$329 per ton. White Cloud Extension, Rattlesnake District.
253. Silver ore. Base Metal Range, White Pine.
254. Cerargyrite, with carb. copper. White Pine.
255. Tetrahedrite. Lady Franklin, Humboldt.
256. Silver ore; copper. Humboldt.
257. Silver ore; copper. Sierra, Humboldt.
258. Cerargyrite and malachite. Columbus District, Humboldt.
259. Cerargyrite and argentite. Lone Star.
260. Cerargyrite. Jennings, IDAHO.
261. Silver ore; carb. of copper. Ohio District, UTAH.
262. Argentite. ARIZONA.

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263. Silver ore. Eagan Cañon, UTAH.
 264. Silver ore. Ohio District, UTAH.
 265. Silver ore containing \$60, gold; silver, \$210. MEXICO.
 266. Silver ore. Ohio District, UTAH.
 267. Silver ore. Rush Valley, UTAH.
 268. Silver ore. Cotton Meadow Mill, Ogden, UTAH.
 269. Silver ore. Minerville, UTAH.
 270. Silver ore. Guadaloupe, Concordia.
 271. Silver ore. Mazatlan, MEXICO.
 272. Silver ore. Durango, MEXICO.
 273. Silver ore. Sonora, MEXICO.
 274. Silver ore. St. Louis, Chihuahua.
 275. Silver ore.
 276. Silver ore; galenite. Venezuela, SOUTH AMERICA.
 277. Argentite; chrysocolla (\$1,400). Sonora, MEXICO.
 278. Argentiferous galenite, and copper glance. Lower California.
 279. Silver ore. Mazatlan, MEXICO.
 280. Silver ore. Rosario, Sinaloa, MEXICO.
 281. Sulphurets of silver; galena; sphalerite. Durango, MEXICO.
 282. Sulphurets of silver. Alcoran Mine, Copala, MEXICO.
 283. Silver ore; iron pyrites.
 284. Silver ore. Hercynia, Lower California.
 285. Silver ore. MEXICO.
 286. Silver ore. Hercynia, Lower California.
 287. Silver ore. Hermosilla, Sonora, MEXICO.
 288. Silver ore.
 289. Silver ore. Durango, MEXICO.
 290. Silver ore. La Favorita, MEXICO.
 291. Native silver. Chihuahua.
 292. Silver ore. Sonora, MEXICO.
 293. Native silver. Mexican Mine, Comstock.
 294. Silver ore. Pillar Mine, Kearsarge District, Tulare County.
 295. Partzite. Blind Springs, Mono County.
 296. Chloride of silver (cerargyrite). Doug. Mine, Reese River.
 297. Silver ore. Gould & Curry.
 298. Silver ore; \$400 per ton. Shasta County.
 299. Silver ore. Belcher.

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300. Silver ore. Belcher.
 301. Silver ore; surface. Gould & Curry.
 302. Silver ore. Ophir.
 303. Silver ore; chalybite; chalcopyrite. Durango, MEXICO.
 304. Silver ore. Providence, Copala, MEXICO.
 305. Galena; silver ore. St. Rosa, Chihuahua.
 306. Silver ore. Purissima, Calican, Sinaloa.
 307. Silver ore. Rio de la Atosha, St. Ignazio, Sinaloa.
 308. Argentite; galena; chalcopyrite. Mazatlan.
 309. Native silver. MEXICO.
 310. Silver ore. Durango.
 311. Native silver. MEXICO.
 312. Sulphurets of silver; galena; copper (Sombrero). Copala, MEXICO.
 313. Stephanite (brittle silver). Mexico.
 314. Parargyrite. Mexico.
 315. Argentiferous galenite. Sonora, MEXICO.
 316. Argentite; tetrahedrite. Colorado River, Sonora.
 317. Silver ore. Mazatlan.
 318. Silver ore. St. Michaels, Sonora.
 319. Native silver. Durango.
 320. Sulphurets. Rosales Mine, Mazatlan.
 321. Argentite. Clarion Mine, Copala, MEXICO.
 322. Silver ore; galena. Copala, MEXICO.
 323. Silver ore. Rosaria, Copala, MEXICO.
 324. Silver ore. Chihuahua, MEXICO.
 325. Silver ore. Chihuahua, MEXICO.
 326. Silver ore, which has been roasted. MEXICO.
 327. Silver ore. La Luz Mine, Copala.
 328. Native silver. Batopilar, MEXICO.
 329. Silver ore. Copala.
 330. Silver ore; galena. Copala.
 331. Silver ore. Jesus Maria, Sinaloa, MEXICO.
 332. Silver ore, \$3,350 per ton. San Lucia, Pannico, MEXICO.
 333. Silver ore. Minar Buena, Sinaloa.
 334. Silver ore. MEXICO.
 340. Silver ore; galena; sphalerite. Copala.
 341. Silver ore; copper; lead; zinc. Chihuahua.

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342. Sulphurets of silver. Alarm Mine, Copala.
343. Sulphurets of silver, \$3,500 per ton. Cassandra Mine, San Lucia, Pannico, MEXICO.
344. Native silver. Durango.
345. Sulphurets. Tatigo, Copala.
346. Argentiferous chalcocite, \$318 per ton. Guaymas, MEXICO.
347. Silver ore. Carmen, Chihuahua.
348. Silver ore. Jesus Maria, MEXICO.
349. Silver ore. Copala.
350. Silver ore. Copala.
351. Silver ore. Las Animas, Pannico, MEXICO.
352. Silver ore. Cinco Señores, Mazatlan.
353. Tetrahedrite. Rosaria Mine, Sonora.
354. Proustite. San Domingo, Chihuahua.
355. Sulphurets. Pannico, MEXICO.
356. Silver ore. Mazatlan.
357. Argentiferous galenite. Cinco Señores.
358. Silver-copper ore. Cinco de Mayo, MEXICO.
359. Silver ore. Corale, Sinaloa.
360. Silver ore. MEXICO.
361. Native silver; galena; argentite. MEXICO.
362. Silver ore. Mina Grandes, MEXICO.
363. Silver ore; galena; pyrites; \$200 silver, \$84 gold, per ton. Sonora.
365. Argentiferous galenite and cerussite. Mazatlan.
366. Sulphurets; chalcopyrite. Chihuahua.
367. Silver ore. Nuestra Señora de Guadalupe, Durango.
368. Sulphurets. Rosario Mine, Calcocan, Sinaloa.
369. Sulphurets. Mazatlan.
370. Argentiferous galenite and copper. Copala.
371. Silver ore; decomposed rock. Guaymas.
372. Silver ore. Patroceano, Chihuahua.
373. Silver ore. MEXICO.
374. Silver ore in carbonate of copper. Durango.
375. Silver ore, with copper. San Blas, MEXICO.
376. Croppings; silver ore. Lower California.
377. Silver ore; arsenic; antimony; lead; 400 ounces of silver per ton. San Antonio, MEXICO.

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378. Native silver; sphalerite; calcite. Chihuahua.
 379. Silver ore. Reese River.
 380. Cerargyrite. Reese River.
 381. Sulphurets of silver. Reese River.
 382. Tetrahedrite. Murphys, NEVADA.
 383. Sulphurets of silver; tetrahedrite. Reese River.
 384. Silver ore. Reese River.
 385. Silver ore. Landers Hill, Reese River.
 386. Pyrargyrite; tetrahedrite. Reese River.
 387. Tetrahedrite. Reese River.
 388. Sulphurets of silver. Sonoma Mine, Reese River.
 389. Silver ore. Washington District, NEVADA.
 390. Pyrargyrite. Reese River.
 391. Pyrargyrite; sulphurets of silver. Reese River.
 392. Tetrahedrite, and ruby silver. North Star, Reese River.
 393. Silver ore. Ironsides Lode, Reese River.
 394. Silver ore; calcite. Silver Treasure.
 395. Silver ore. Laplander, Reese River.
 396. Silver ore which has been subjected to roasting. Reese River.
 397. Surface ore. Sonoma Mine, Reese River.
 398. Sulphurets. Oregon Mine, Reese River.
 399. Galena and azurite. Reese River.
 400. Silver ore. Reese River.
 401. Silver ore. Reese River.
 402. Tetrahedrite. Reese River.
 403. Silver ore. Reese River.
 404. Tetrahedrite. Cloud Mine, Reese River.
 405. Pyrargyrite. Reese River.
 406. Silver ore. Rivere Mine, Reese River.
 407. Argentiferous copper ore. Reese River.
 408. Argentiferous copper ore. Reese River.
 409. Silver, with copper on calcite. Reese River.
 410. Silver, with lead. Hickory Mine, Reese River.
 411. Silver ore. Rough and Ready, Reese River.
 412. Silver ore. Rough and Ready, Reese River.
 413. Silver ore. Rough and Ready, Reese River.
 414. Silver ore. Rough and Ready, Reese River.

415. Silver ore. Mountain Meadow Mine.
416. Cerargyrite and argentiferous copper.
417. Silver ore. North Amador, Reese River.
418. Roasted silver ore. Reese River.
419. Tetrahedrite and galena. Reese River.
420. Argentite; lead. Reese River.
421. Cerargyrite; chalcopyrite. Murphy's, Reese River.
422. Tetrahedrite; lead. Reese River.
423. Silver ore. NEVADA.
424. Roasted silver ore. Rising Star Mine, Reese River.
425. Silver ore. Reese River.
426. Silver ore. Reese River.
427. Cerargyrite and sulphurets of silver; croppings. Reese River.
428. Silver ore (\$85 per ton). McGregor Mine, Reese River.
429. Native silver (bromed ore). Reese River.
430. Silver ore. Reese River.
431. Pyrargyrite. NEVADA.
432. Sulphurets. Ironsides, Reese River.
434. Silver ore; carbonate of lead.
435. Tetrahedrite; azurite. La Plata Mine, Reese River.
436. Pyrargyrite; polybasite. Reese River.
437. Pyrargyrite; polybasite. Reese River.
438. Pyrargyrite; polybasite. Reese River.
439. Silver ore; copper and iron pyrites. Reese River.
440. Proustite. Reese River.
441. Silver in decomposed iron pyrites (\$2,000 per ton).
442. Argentiferous galenite. Empire Mine, Reese River.
443. Carbonate of lead, with carb. copper, carrying silver. Reese River.
444. Silver ore. Reese River.
445. Decomposed surface ore. Bathurst, Reese River.
446. Cerargyrite. Hamilton, NEVADA.
447. Silver ore; some cerargyrite. Amador Ledge, Reese River.
448. Base metal ore containing carb. copper; lead; antimony.
449. Silver ore; carb. of lead. Washington District, Reese River.
450. Carbonates of lead and copper, with silver.
451. Cerargyrite. Hamilton, NEVADA.

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452. Common ore, worked for silver. Reese River.
 453. Tetrahedrite. Clear Creek, Humboldt.
 454. Silver ore. Reese River.
 455. Partzite; stedefeldite (antimony, silver, copper, iron).
 456. Partzite; stedefeldite, with cerargyrite. Blind Springs,
Mono County.
 457. Tetrahedrite. Bull Run Ledge, Cope District, NEVADA.
 458. Partzite (St. Ag. Cu. Fe. Pb.). Comanche, Mono County.
 459. Argentiferous carbonate of lead.
 460. Partzite. Comanche.
 461. Argentiferous carbonate of lead.
 462. Silver ore. Keystone District, Owens River.
 463. Silver ore. Red Jacket Mine, Ophir Cañon, Reese River.
 464. Croppings of Angel Ledge.
 465. Argentiferous copper.
 466. Argentite.
 467. Lead; silver; copper. Yuba County.
 468. Ore containing silver, gold, lead, and tinc. chalcoppyrite.
Pit River, Shasta County.
 469. Partzite.
 470. Argentiferous copper ore. Owens River.
 471. Silver ore; \$200 to \$300 per ton. Mono County.
 472. Partzite. Blind Springs, Mono County.
 473. Silver ore. Amador District, NEVADA.
 474. Silver; copper; lead. Owens River.
 475. Croppings of Montezuma Mine. Reese River.
 476. Silver ore. Belcher, Comstock.
 477. Silver ore. Gould & Curry, Comstock.
 478. Argentite; stephanite; \$5,000 per ton. Comstock Lode.
 479. Argentite; stephanite; \$5,000 per ton. Comstock Lode.
 480. Silver ore. Gould & Curry.
 481. Argentite, with gold. Comstock Lode.
 482. Argentite on quartz. Chollar Mine.
 483. Argentite on quartz. Chollar Mine.
 484. Silver ore. Belcher.
 485. Silver ore; chalcoppyrite. Mexican, Comstock.
 486. Native silver. Hale & Norcross.
 487. Silver ore; \$4,000 per ton. Mexican.

- 488. Silver ore. Comstock Lode.
- 489. Silver ore. Base Metal Range.
- 490. Silver; copper; lead; \$400 silver. Owens River.
- 491. Silver ore. Savage Mine, Comstock.
- 492. Silver ore; average.
- 493. Silver ore; average.
- 494. Silver ore. Chollar.
- 495. Sulphurets. Hale & Norcross.
- 496. Sulphurets. Savage.
- 497. Silver ore (gold, copper, silver). Carson River, NEVADA.
- 498. Native silver on sulphurets. Gould & Curry.
- 499. Sulphurets. Ophir.
- 500. Silver ore. Mexican Lode, Carson.
- 501. Argentiferous copper. Battle Mountain.
- 502. Silver ore. Savage.
- 503. Silver ore. Hale & Norcross.
- 504. Silver ore. Monte Cristo, Carson.
- 505. Silver ore. Gold Hill.
- 506. Silver ore, with copper. Carson.
- 507. Silver ore. Yankee Claim.
- 508. Silver ore. Cherokee Lead, Flowery District, Carson.
- 509. Argentite. Gould & Curry, No. 2.
- 510. Silver ore (very poor ore too). NEVADA.
- 511. Silver ore. Carson Valley.
- 512. Argentite. Mexican Lode, Carson Valley.
- 513. Argentite, gold-bearing; malachite. Mexican Lode.
- 514. Silver ore. Yellow Jacket.
- 515. Native silver. Mexican.
- 516. Native silver. Mexican.
- 517. Silver ore. Reese River.
- 518. Silver ore. Mexican Mine, upper part.
- 519. Silver ore. Mexican Mine, upper part.
- 520. Argentite; stephanite. Imperial and Empire, Gold Hill,
NEVADA.
- 521. Argentite; stephanite. Imperial and Empire, Gold Hill,
NEVADA.
- 522. Gold; silver; copper. Carson Valley.
- 523. Silver ore. Chollar.

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524. Tetrahedrite; malachite. Bevelheimer Mountain, Placer County.
525. Silver ore. Gould & Curry.
526. Silver ore. Gould & Curry.
527. Poor silver ore. Ruby Ledge, Comstock.
528. Wire silver. Hale & Norcross.
529. Gold; silver; copper. Mexican.
530. Silver ore. Black Lode, Gold Hill.
531. Silver ore; native silver. Ophir.
532. Native silver. Belcher, Virginia City.
533. Native silver. Chollar.
534. Native silver.
535. Native silver, with gold and copper; \$900 gold; \$700 silver. Comstock.
536. Native silver. Hale & Norcross.
537. First discovery on Comstock Lode. (?)
538. Argentite; stephanite; native silver. Gould & Curry.
539. Argentite. Comstock.
540. Argentite. Hartz Mountains.
541. Cerargyrite. White Pine, NEVADA.
542. Cerargyrite. White Pine, NEVADA.
543. Bromyrite (bromide of silver) on limonite. Durango, MEXICO.
544. Stephanite. Tarshish Mountains, Alpine County.
545. Partzite (antimony, silver, copper, lead, iron).
546. Partzite. Comanche Mine, Mono County.
547. Partzite. Comanche Mine, Mono County.
548. Partzite. Comanche Mine, Mono County.
549. Partzite. Blind Springs, Mono County.
550. Partzite. Blind Springs, Mono County.
551. Partzite. Blind Springs, Mono County.
552. Partzite. Blind Springs, Mono County.
553. Partzite; \$200 per ton, silver. Blind Springs, Mono County.
554. Partzite. Blind Springs, Mono County.
555. Partzite. Blind Springs, Mono County.
556. Native silver—fine. ARIZONA.
557. Argentite on sphalerite. MEXICO.
558. Ruby silver (pyrargyrite). Reese River.

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559. Pyrargyrite and proustite; tetrahedrite. Reese River.
560. Pyrargyrite; proustite; calcite. White Pine, NEVADA.
561. Pyrargyrite; proustite. Reese River.
562. Sulphurets. Savage Mine.
563. Silver ore, containing antimony, silver, lead, iron. Triombe,
Lower California.
564. Horn silver (cerargyrite). ARIZONA.
565. Horn silver (cerargyrite). ARIZONA.
566. Native silver. Wittichen, BADEN.
567. Native silver on calcite. Schneeberg, GERMANY.
568. Silver ore. Mono County.
569. Stephanite. Savage Mine, NEVADA.
570. Pyrargyrite. Reese River.
571. Cerargyrite. Eberhardt Mine, White Pine.
572. Native silver on lava.
573. Native silver; chloride of silver and sulphurets. Bonanza
Mine, IDAHO.
574. Argentite. Gould & Curry.
575. Argentite. Gould & Curry.
576. Silver ore. NEVADA.
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QUICKSILVER ORES. (MERCURY.)

1. Cinnabar (sulphuret of mercury). Paper Valley, Lake
County.
2. Cinnabar. Paper Valley, Lake County.
3. Cinnabar. Colusa County.
4. Cinnabar. Colusa County.
5. Cinnabar. Paper Valley.
6. Cinnabar. Paper Valley.
7. Cinnabar. Coast Range, Colusa County.
8. Cinnabar. Lake County.
9. Cinnabar. Lake County.
10. Cinnabar. Lake County.
11. Cinnabar. Lake County.

12. Cinnabar. Paper Valley.
13. Cinnabar. Monterey County.
14. Cinnabar. Almaden.
15. Cinnabar. Idria.
16. Cinnabar. Idria.
17. Cinnabar. Almaden.
18. Cinnabar. Almaden.
19. Cinnabar. Almaden.
20. Chalcedony, impregnated with cinnabar.
21. Cinnabar, with native mercury (quicksilver). Idria.
22. Cinnabar. Santa Clara.
23. Cinnabar. Santa Clara.
24. Cinnabar in nail-headed calcite.
25. Cinnabar in serpentine, with iron pyrites. Almaden.
26. Stream cinnabar.
27. Cinnabar. Monterey.
28. Cinnabar in obsidian, with iron pyrites. Lake County.
29. Cinnabar in calcite.
30. Cinnabar. Paper Valley.
31. Cinnabar. Paper Valley.
32. Cinnabar. Paper Valley.
33. Cinnabar. Paper Valley.
34. Cinnabar. Welsh Mine, Mount Diablo.
35. Cinnabar. Placer County.
36. Cinnabar. New Idria.
37. Cinnabar in serpentine, with iron pyrites. Excelsior Mine,
Lake County.
38. Cinnabar in serpentine, with iron pyrites. Excelsior Mine,
Lake County.
39. Stream cinnabar.
40. Cinnabar. California.
41. Cinnabar. Lake County.
42. Cinnabar. Lake County.
43. Cinnabar. Lake County.
44. Native mercury (cinnabar). Lake County.
45. Cinnabar. Lake County.
46. Cinnabar. Napa County.
47. Cinnabar. Napa County.

48. Cinnabar. Cinnabar Slide, Lake County.
 49. Native mercury (cinnabar). Lake County.
 50. Conglomerate, with cinnabar. Lake County.
 51. Native mercury in cinnabar. Lake County.
 52. Cinnabar. Lake County.
 53. Cinnabar. Knoxville.
 54. Cinnabar. Lake County.
 55. Cinnabar. Lake County.
 56. Cinnabar, with iron pyrites. Lake County.
 57. Cinnabar on sulphur. Lake County.
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COPPER, AND COPPER ORES.

1. Copper pyrites. Mormon Island.
2. Copper pyrites. Newcastle, Placer County.
3. Chalcopyrite. Latrobe Tunnel.
4. Azurite and malachite (blue and green carbonate of copper).
5. Cyanurite (sulphate of copper). San Joaquin.
6. Chrysocolla and malachite. Dakota Mine.
7. Malachite, polished, from SIBERIA.
8. Malachite; azurite; chalcopyrite. El Dorado County.
9. Malachite; azurite. ARIZONA.
10. Malachite. Stony Lake, NEVADA.
11. Malachite. Stony Lake, NEVADA.
12. Native copper (metallic copper). Lake Superior.
13. Tetrahedrite (argentiferous gray copper).
14. Melaconite; chalcopyrite. Campo Seco.
15. Liebethenite (phosphate of copper). Liebethen, HUNGARY.
16. Chalcophyllite (arsenate of copper). Tyrol.
17. Chalcocite, with carb. of copper. Death's Valley, NEVADA.
18. Carb. of copper, with melaconite. Colusa.
19. Chalcopyrite. Morton Mine, Amador County.
20. Chalcopyrite. Clarion Mine, Copperopolis, Calaveras County.
21. Sulphuret, with carbonate of copper on limonite. El Dorado County.

22. Cuprite (red ox. of copper). Rockland District, Del Norte County.
23. Chalcopyrite, with sulphuret of iron. Silver King Mine, Carson River.
24. Azurite; chrysocolla; cupro-plumbite. Merced, Owens River.
25. Iron and copper pyrites. Humboldt, Inyo County, NEVADA.
26. Cuprite, with azurite; chrysocolla. Battle Mountain, Humboldt.
27. Decomposed copper and iron pyrites. Tear Rip Mine, El Dorado County.
28. Chalcopyrite and carbonates. Cosumnes River, El Dorado County.
29. Carbonate of copper (argentiferous). White Pine, NEVADA.
30. Chalcocite, with malachite and ox. of copper. Union County, OREGON.
31. Native copper, with cuprite. Union County, OREGON.
32. Oxyd of copper in a mica schist. OREGON.
33. Chalcopyrite and carbonate. El Dorado County.
34. Copper in mica schist. OREGON.
35. Chalcopyrite. Calaveras.
36. Decomposed chalcopyrite, with iron. El Dorado County.
37. Carb. of copper. El Dorado County.
38. Azurite.
39. Azurite. Mount Diablo Mine.
40. Carbonate of copper. Jordan, UTAH.
41. Carb. of copper, with galena. ARIZONA.
42. Azurite; malachite. Jordan, UTAH.
43. Malachite. Salt Lake.
44. Carbonate of copper and iron, carrying gold and silver. ARIZONA.
45. Bornite (erubescite), Lake Huron, CANADA.
46. Chalcopyrite. Lake Huron, CANADA.
47. Chalcopyrite. Lake Huron, CANADA.
48. Carbonate of copper on argentiferous galenite. ARIZONA.
49. Chalcocite and copper (\$69 silver, \$85 gold), \$123 per ton. Colorado River.
50. Chrysocolla. ARIZONA.

51. Chrysocolla. ARIZONA.
52. Chalcocite. ARIZONA.
53. Carbonate of copper on argentiferous galena. ARIZONA.
54. Argentiferous chalcocite. ARIZONA.
55. Carbonate of copper on argentiferous galena. ARIZONA.
56. Carbonate of copper. ARIZONA.
57. Carbonate of copper and chalcocite. ARIZONA.
58. Native copper and incrustations of carbonate. Lake Superior.
59. Carbonate of copper and galenite. ARIZONA.
60. Native copper. Lake Superior.
61. Native copper, with zeolith. Lake Superior.
62. Native copper, with silver. Lake Superior.
63. Native copper in calcite. Lake Superior.
64. Chrysocolla, with zeolith. Lake Superior.
65. Chalcopyrite, with bornite and garnets. Mazatlan, MEXICO.
66. Azurite; chesrylite. Lyons, FRANCE.
67. Azurite. Cornwall.
68. Copper; carbonates. Silver City, IDAHO.
69. Chalcopyrite. Lower California.
70. Copper ore. Cornwall.
71. Native copper. Lake Superior.
72. Native copper in calcite. Lake Superior.
73. Malachite on decomposed chalco, and iron pyrites. Liberique, MEXICO.
74. Carbonate of copper, with chalcocite and silver. Empire Mine, IDAHO.
75. Carbonate of copper, with chalcocite. Empire Mine, IDAHO.
76. Cuprite. Cornwall.
77. Chrysocolla. Near Guaymas, MEXICO.
78. Chrysocolla. Near Guaymas, MEXICO.
79. Chrysocolla (copper, lead, gold, and silver). MEXICO.
80. Carbonate of copper and limonite.
81. Azurite; malachite; chrysocolla. Blind Springs, Mono County.
82. Chalcopyrite and carbonates. Mono County.
83. Azurite; chalcopyrite. Pacific Mine, Placer County.
84. Chalcopyrite. California.

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85. Native copper; cuprite; malachite. Colusa County.
 86. Chalcopyrite. Copperopolis, Calaveras County.
 87. Chalcopyrite. Copperopolis, Calaveras County.
 88. Enargite, with copper pyrites (Cu. As. S.). Morning Star, Silver Mountain, Alpine County.
 89. Chalcopyrite. Mariposa County.
 90. Chalcopyrite. NEW JERSEY.
 91. Copper pyrites, with iron. Amador County.
 92. Tetrahedrite (argentiferous copper ore).
 93. Chalcopyrite. California.
 94. Chalcopyrite, with malachite. Monterey.
 95. Bornite. Ione Valley, Amador.
 96. Bornite. Ione Valley, Amador.
 97. Chalcopyrite. Ione Valley, Amador.
 98. Copper and iron pyrites. Amador.
 99. Chalcopyrite, with gold. Coulterville.
 100. Chalcopyrite. Amador.
 101. Cuprite. Taper Valley, Napa County.
 102. Azurite (malachite). Young America, Placer County.
 103. Chalcopyrite (gold, silver, galenite). Grass Valley.
 104. Chalcopyrite. Delhi Mine, Placer.
 105. Chalcopyrite.
 106. Chalcopyrite. Eureka Consol., Nevada County.
 107. Carb. copper, with argentif. galenite. Owens River, Mono County.
 108. Carb. copper; sphalerite containing gold and silver. Placer County.
 109. Cuprite-malachite. Excelsior Mine, Nevada County.
 110. Carb. copper. Truckee.
 111. Chalcopyrite. San Juan, Nevada County.
 112. Carb. copper. Butte Mountain, Humboldt County.
 113. Carb. copper; chrysocolla.
 114. Argentiferous carbonate of copper. Bull Run.
 115. Chrysocolla; azurite; malachite.
 116. Tetrahedrite; malachite.
 117. Copper on limonite.
 118. Bornite and argentiferous malachite.
 119. Enargite (Cu. As. S.) Silver Mountain, Alpine County.

120. Azurite.
121. Copper pyrites; galenite. Virginia City.
122. Native copper. Polk County, TENNESSEE.
123. Azurite; malachite. California.
124. Chalcopyrite. TENNESSEE.
125. Native copper.
126. Copper ore.
127. Azurite; chrysocolla.
128. Azurite, with quartz crystals. IDAHO.
129. Copper ore, with iron (impure). CUBA.
130. Chalcopyrite. White Mountain, VERMONT.
131. Chalcopyrite. Napoleon Mountain, Copperopolis.
132. Chalcopyrite, with melaconite (black oxide of copper).
Copperopolis.
133. Chalcopyrite. Lake Huron.
134. Malachite on iron ore. Beaver, UTAH.
135. Chrysocolla. Rover Lode, COLORADO.
136. Chalcopyrite, with bornite. California.
137. Native copper. California.
138. Chalcopyrite. Campo Seco.
139. Azurite on limonite. CUBA.
140. Malachite on limonite. CUBA.
141. Chalcopyrite on calcite. Lake Huron.
142. Quartz, incrustated, with carb. of copper. Mineral Point,
WISCONSIN.
143. Cornwallite (arsenate of copper). Cornwall, ENGLAND.
144. Chalcopyrite. California.
145. Chalcopyrite. Sonora, MEXICO.
146. Erubescite (bornite); calcopyrite. Cape of Good Hope,
AFRICA.
147. Copper, with tin. Phoenix Mine, Cornwall, ENGLAND.
148. Chalcopyrite. Bottalah Mine, Cornwall, ENGLAND.
149. Cuprite. Cornwall, ENGLAND.
150. Erubescite (Peacock ore), with covellite. Thuringian For-
est, GERMANY.
151. Malachite. Lower California.
152. Melaconite on chalcopyrite. Cornwall.

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153. Argentiferous copper; azurite; cerussite. Blind Springs, Mono County.
 154. Chalcopyrite. Copperopolis.
 155. Chalcopyrite, with green garnets; malachite.
 - 150a. Bornite. La Favorita, MEXICO.
 - 151a. Bornite. CHILI.
 - 152a. Bornite. Sarahville, MEXICO.
 - 153a. Malachite. CUBA.
 - 154a. Chalcopyrite. Sonora.
 - 155a. Chalcopyrite. California.
 156. Chalcopyrite and tetrahedrite. Sonora.
 157. Chalcopyrite. Libertad, MEXICO.
 158. Chalcopyrite. Lower California.
 159. Cuprite, with native copper. California.
 160. Chalcopyrite. Chihuahua.
 161. Carbonate of copper. Lower California.
 162. Chrysocolla. Carmel Island, Gulf of California.
 163. Chrysocolla. Divo Padres, Sinaloa, MEXICO.
 164. Chrysocolla. Divo Padres, Sinaloa.
 165. Chrysocolla. Guaymas, MEXICO.
 166. Chrysocolla. MEXICO.
 167. Copper ore. Baja California.
 168. Azurite; trace malachite. MEXICO.
 169. Chalcopyrite. Libertad Mine, Sonora.
 170. Chrysocolla and carbonate of copper. Copala, MEXICO.
 171. Malachite. Mazatlan.
 172. Copper, with mica. Baja California.
 173. Chrysocolla; chalcocite. Placer County.
 174. Carbonate of copper. Gardner Ledge, Placer County.
 175. Copper, with crystals of epidote. Placer County.
 176. Croppings; copper ore. Gardner Ledge, Placer County.
 177. Azurite; malachite. Owens River.
 178. Chalcocite. Eastern Slope Sierras, Placer County.
 179. Native copper. Monterey County.
 180. Croppings of Gardner Ledge (malachite).
 181. Copper ore. Bear River, Placer County.
 182. Malachite, mixed with oxyd iron. Placer County.
 183. Chrysocolla. Gardner Ledge.

184. Erubescite. Nevada County.
185. Cuprite; malachite. Harpending Mine, Placer County.
186. Carb. of copper. Gardner Ledge.
187. Chrysocolla. Placer County.
188. Azurite. Placer County.
189. Chalcocite, with carb. of copper. Owens River.
190. Copper ore.
191. Argentiferous copper ore.
192. Copper ore. Crakes Mine, White Mountain, Mono County.
193. Chalcocite, with silver. Cornucopia Mine, Mono County.
194. Chalcocite, with silver. Cerro Gordo, Mono County.
195. Copper ore, with galena (argentiferous). Mono County.
196. Argentiferous copper ore. Liberty, Owens River.
197. Copper ore. Buckeye Mine, Fraser River.
198. Argentiferous copper ore. Comanche Mine, Mono County.
199. Argentiferous copper ore in calcite. Hot Springs, Mono County.
200. Chrysocolla, with argentiferous copper ore. Liberty, Owens River.
201. Copper and lead, with silver. Owens River.
202. Copper ore, with limonite. Owens River.
203. Chalcopyrite. Owens River.
204. Chalcocite. Owens River.
205. Copper ore, with iron. Slate Mountain, Mono County.
206. Azurite; malachite. Owens River.
207. Chalcocite; carb. of copper; galena. Kearsarge District, Mono County.
208. Argentiferous carb. of copper. Owens River.
209. Copper ore. Blind Springs, Mono County.
210. Argentiferous copper ore. Comanche, Mono County.
211. Argentiferous copper ore. Comanche, Mono County.
212. Copper ore. Owens River.
213. Copper ore. Blind Springs.
214. Copper ore. Blind Springs.
215. Argentiferous copper carbonates. Mono County.
216. Copper ore. Owens River.
217. Cuprite, with carb. of copper. Battle Mountain, NEVADA.
218. Cuprite, with carb. of copper. Battle Mountain, NEVADA.

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219. Chalcopyrite and carbonates. Carson.
220. Cuprite. OREGON.
221. Argentiferous copper ore. White Pine, NEVADA.
222. Copper ore, with hematite. Battle Mountain, NEVADA.
223. Malachite, with cuprite. Battle Mountain, NEVADA.
224. Copper ore. Battle Mountain, NEVADA.
225. Copper ore. Columbia District, NEVADA.
226. Copper ore. Reese River.
227. Carb. of copper, with galenite. NEVADA.
228. Native copper. Point Oxford, OREGON.
229. Carb. of copper, with iron ore. Silver Peak, NEVADA.
230. Carb. of copper. MONTANA.
231. Malachite; azurite. Pine Grove, NEVADA.
232. Chalcopyrite. Lake Tahoe.
233. Malachite; azurite; tetrahedrite. Moonlight, Humboldt County.
234. Malachite, with tourmaline. Carson.
235. Chalcopyrite. Carson Valley.
236. Pyrites, with black oxid. of copper. Humboldt.
237. Cuprite. Humboldt.
238. Chalcopyrite; bornite. NEVADA.
239. Carb. of copper. Truckee River.
240. Malachite; chrysocolla. Pine Grove, NEVADA.
241. Copper ore, with iron.
242. Carb. of copper. Honey Lake, NEVADA.
243. Bornite, with molybdite. Solferino, NEVADA.
244. Azurite. Humboldt.
245. Carb. of copper. Reese River.
246. Bornite. Humboldt County, NEVADA.
247. Bornite; malachite. Gen. Jackson, Puebla District, Humboldt.
248. Carb. of copper. Minnehaha, Humboldt.
249. Erubescite; carb. of copper. Honey Lake, NEVADA.
250. Malachite. Reese River.
251. Chalcocite. Reese River.
252. Carb. of copper, with horn silver. Washington District, NEVADA.
253. Bornite and carb. of copper. Honey Lake, NEVADA.

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254. Chalcopyrite; bornite; malachite. Carson Valley.
 255. Copper ore. White Pine.
 256. Erubescite; bornite. Carson River.
 257. Cuprite. Black Rock, Humboldt County.
 258. Chalcocite. Humboldt.
 259. Chrysocolla. Carson Valley.
 260. Copper ore, bearing gold and silver. Carson Valley.
 261. Argentiferous copper ore; \$300 silver, per ton. Cope District, NEVADA.
 262. Carb. copper. Alpha Mine, Echo District, Humboldt.
 263. Carb. copper. Pine Grove, NEVADA.
 264. Copper ore, bearing gold. Carson.
 265. Carb. copper. Humboldt.
 266. Erubescite; azurite. Truckee.
 267. Chalcocite. Great Eastern, Truckee.
 268. Malachite; cuprite. Indian Creek, Sacramento County.
 269. Azurite; malachite. San Luis Obispo.
 270. Malachite. Cosumnes River.
 271. Azurite; malachite. Cosumnes River.
 272. Bornite. Cosumnes River.
 273. Enargite, with iron pyrites. Morning Star, Silver Mountain, Alpine County.
 274. Chrysocolla; erubescite. Sierra County.
 275. Bornite. Sierra County.
 276. Chalcopyrite. Cosumnes River.
 277. Bornite. Cosumnes River.
 278. Chrysocolla. Sierra County.
 279. Copper ore. Shasta County.
 280. Chalcopyrite. Pitt River, Shasta County.
 281. Cuprite; malachite. Cottonwood Cañon, Shasta County.
 282. Chrysocolla. Indian Creek, Sacramento County.
 283. Azurite; malachite; pyrites. Pitt River, Shasta County.
 284. Carb. copper. Tulare County.
 285. Chalcopyrite, in a loose state. Cosumnes River.
 286. Carb. copper. Cosumnes River.
 287. Croppings, chalcopyrite and carbonate. Cosumnes.
 288. Chalcocite. Indian Creek, Sacramento County.
 289. Chalcocite; malachite. Cosumnes.

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290. Chrysocolla. Indian Creek, Sacramento County.
 291. Chalcopyrite; chalcocite; malachite. Cosumnes.
 292. Cuprite; carb. copper. Michigan Bar, Sacramento County.
 293. Carb. copper. Indian Creek, Sacramento County.
 294. Azurite; malachite. Oriental Mine, Cosumnes.
 295. Copper ore; iron pyrites. Cosumnes.
 296. Chalcopyrite. Cosumnes.
 297. Copper ore. Cosumnes.
 298. Carb. copper. Cosumnes.
 299. Carb. copper. Cosumnes.
 300. Chalcopyrite. Cosumnes.
 301. Chalcocite. Cosumnes.
 302. Chalcocite. Indian Creek, Sacramento County.
 303. Croppings, copper ore. Cosumnes.
 304. Carb. copper. Cosumnes.
 305. Malachite. Cosumnes.
 306. Chrysocolla. Cosumnes.
 307. Copper ore in serpentine. Mormon Island.
 308. Copper ore; carbonate with galenite. ARIZONA.
 309. Copper ore; carbonate with galenite. ARIZONA.
 310. Copper ore; carbonate with galenite. ARIZONA.
 311. Chrysocolla. ARIZONA.
 312. Native copper. ARIZONA.
 313. Malachite; tetrahedrite. Colorado River, ARIZONA.
 314. Native copper. Lake Superior.
 315. Native copper, with calcite. Lake Superior.
 316. Native copper, with calcite. Lake Superior.
 317. Native copper, with calcite. Cliff Mine, Lake Superior.
 318. Native copper, with calcite. Cliff Mine, Lake Superior.
 319. Native copper. Lake Superior.
 320. Native copper. Lake Superior.
 321. Copper stains in calcite. Lake Superior.
 322. Chalcocite (argenterous); \$85, silver; \$123, gold. Colorado River.
 323. Native copper. ARIZONA.
 324. Native copper. Lake Superior.
 325. Native copper. Lake Superior.
 326. Malachite. Lake Superior.

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327. Tennantite (As. S. Fe. Cu.); chrysocolla. Lake Superior.
328. Cuprite, malachite, and native copper. Lake Superior.
329. Trap, with native copper; epidote. Lake Superior.
330. Native copper. Lake Superior.
331. Native copper. Lake Superior.
332. Native copper. Lake Superior.
333. Copper ore. Lake Superior.
334. Native copper in a boulder. Lake Superior.
335. Native copper. ARIZONA.
336. Native copper. Lake Superior.
337. Native copper in calcite. Lake Superior.
338. Chalcocite; carbonate of copper. Los Angeles Mine, ARIZONA.
339. Native copper. Lake Superior.
340. Native copper in trap rock.
341. Native copper in calcite. Cliff Mine, Lake Superior.
342. Croppings. From Cliff Mine.
343. Native copper. Lake Superior.
344. Native copper in calcite. Lake Superior.
345. Native copper in limestone. Lake Superior.
346. Native copper in trap rock. Lake Superior.
347. Copper ore. Lake Superior.
348. Native copper. Lake Superior.
349. Native copper in epidote. Lake Superior.
350. Trap rock of Lake Superior mines.
351. Copper ore. Puebla Mine, Lake Superior.
352. Sulph. copper. Los Angeles Mine, ARIZONA.
353. Malachite. Los Angeles Mine, ARIZONA.
354. Chrysocolla. Los Angeles Mine, ARIZONA.
355. Chrysocolla. Los Angeles Mine, ARIZONA.
356. Chalcocite; cuprite. Los Angeles Mine, ARIZONA.
357. Cuprite. Los Angeles Mine, ARIZONA.
358. Carbonate of copper; tetrahedrite (argenteriferous).
359. Chrysocolla. ARIZONA.
360. Chalcocite. ARIZONA.
361. Cuprite; malachite. ARIZONA.
362. Copper ore. Williams' Fork, ARIZONA.
363. Native copper. ARIZONA.

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364. Copper ore, with galenite. ARIZONA.
365. Chrysocolla. ARIZONA.
366. Carbonate of copper. Los Angeles Mine, ARIZONA.
367. Argentiferous copper ore. ARIZONA.
368. Cuprite; chrysocolla; malachite. Los Angeles Mine, ARIZONA.
369. Chalcocite, bearing silver and gold. Colorado River, ARIZONA.
370. Carbonate of copper, with fluorite. Colorado River, ARIZONA.
371. Malachite; melaconite. Los Angeles Mine, ARIZONA.
372. Copper ore. Los Angeles Mine, ARIZONA.
373. Chrysocolla. Los Angeles Mine, ARIZONA.
374. Carbonate of copper. Los Angeles Mine, ARIZONA.
375. Chrysocolla; malachite. Los Angeles Mine, ARIZONA.
376. Cuprite. Colusa County, California.
377. Cuprite. Colusa County.
378. Chalcocite; cuprite. Colusa County.
379. Cuprite. Del Norte County.
380. Chalcopyrite; galenite. Del Norte County.
381. Cuprite. Colusa County.
382. Cuprite and native copper. Colusa County.
383. Native copper. Del Norte County.
384. Native copper. Copper Hill, Colusa County.
385. Cuprite and carbonate of copper. Colusa County.
386. Chalcocite. Del Norte County.
387. Malachite; sphalerite. Del Norte County.
388. Cuprite. Colusa County.
389. Copper ore; tetrahedrite. Del Norte County.
390. Chalcopyrite; quartz. U. S. Mine, Colusa County.
391. Carbonate of copper. U. S. Mine, Colusa County.
392. Carbonate of copper. U. S. Mine, Colusa County.
392a. Cuprite and carbonate of copper. U. S. Mine, Colusa County.
393. Malachite. Stag Hill.
394. Cuprite. Colusa County.
395. Native copper; cuprite. Copper Hill, Colusa County.
396. Chalcopyrite. Stag Hill.
397. Chalcopyrite; melaconite. Calaveras County.
398. Malachite. Stag Hill.

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399. Malachite. Campo Seco, Calaveras County.
 400. Chalcopyrite. Copperopolis.
 401. Chalcopyrite. Copperopolis.
 402. Chalcopyrite, with covellite (indigo copper). Campo Seco.
 403. Chalcopyrite and carb. copper. Campo Seco.
 404. Native copper. Campo Seco.
 405. Chalcopyrite. Campo Seco.
 406. Chalcopyrite, mixed with iron pyrites. Union Mine, Copperopolis.
 407. Copper ore. Calaveras County.
 408. Chalcopyrite. Copperopolis.
 409. Chalcopyrite and iron pyrites. Campo Seco.
 410. Chrysocolla. Stag Hill.
 411. Chalcopyrite; arsenical pyrites. Calaveras County.
 412. Chalcopyrite; arsenical pyrites. Calaveras County.
 413. Chalcopyrite; arsenical pyrites. Copperopolis.
 414. Chalcopyrite; iron pyrites; sphalerite. Campo Seco.
 415. Azurite. Calaveras County.
 416. Chalcopyrite; carb. copper. Stag Hill, Calaveras County.
 417. Chalcopyrite; carb. copper. Stag Hill, Calaveras County.
 418. Carb. copper. Stag Hill, Calaveras County.
 419. Carb. copper. Stag Hill, Calaveras County.
 420. Chalcopyrite. Calaveras County.
 421. Copper ore, with magnetite crystals. Calaveras County.
 422. Chalcopyrite. Coulterville, Mariposa County.
 423. Copper ore, with magnetite. Coulterville, Mariposa County.
 424. Copper ore, with magnetite. Coulterville, Mariposa County.
 425. Carb. copper. Cottonwood Cañon, Mariposa County.
 426. Copper ore, with magnetite in crystals. Mariposa County.
 427. Chrysocolla. Owens River.
 428. Copper ore, with crystals magnetite. Coulterville, Mariposa County.
 429. Azurite; malachite. Coulterville, Mariposa County.
 430. Malachite. Coulterville, Mariposa County.
 431. Cuprite; chalcocite; native copper. Klamath County.
 432. Bornite. Benson, UTAH.
 433. Croppings of copper ore. Kern River.
 434. Copper ore. Tejon Pass.

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435. Malachite. Jordon River, UTAH.
 436. Chalcocite. Klamath County.
 437. Chrysocolla; carb. copper. Coulterville, Mariposa County.
 438. Argentiferous copper ore. East Range, Humboldt County.
 439. Copper and lead ore. Lone Pine District, Inyo County.
 440. Carbonate of copper. Merced, Inyo County.
 441. Carbonate of copper. Merced, Inyo County.
 442. Chrysocolla; azurite; galena. Merced.
 443. Carbonate of copper.
 444. Carbonate of copper. Owens River, Mono County.
 445. Azurite. Moonlight, Humboldt County, NEVADA.
 446. Copper ore, with gravel.
 447. Argentiferous copper ore; antimony; lead; iron. Owens River.
 448. Argentiferous copper ore; antimony; lead; iron. Owens River.
 449. Malachite; galena. Merced.
 450. Copper; lead ore. Lone Pine, Inyo County.
 451. Copper ore; \$400 per ton, silver. Las Piedas, Inyo County.
 452. Carbonate of copper; galena. Inyo County.
 453. Malachite; chrysocolla. Humboldt County, NEVADA.
 454. Copper ore. Calaveras County.
 455. Carbonate of copper. Humboldt County, NEVADA.
 456. Chalcopyrite. Calaveras County.
 457. Carbonate of copper. Ne Plus Ultra, Fresno County.
 458. Carbonate of copper. Ne Plus Ultra, Fresno County.
 459. Carbonate of copper. Ne Plus Ultra, Fresno County.
 460. Malachite and iron. Ne Plus Ultra, Fresno County.
 461. Chalcopyrite; bornite; malachite. El Dorado County.
 462. Chalcopyrite; magnetite. Coloma, El Dorado County.
 463. Copper; iron ore. Coloma, El Dorado County.
 464. Carbonate of copper. Plome Lode, El Dorado County.
 465. Chalcopyrite. Fairmount, El Dorado County.
 466. Carbonate of copper. El Dorado County.
 467. Carbonate of copper. Home Lead, El Dorado County.
 468. Copper ore, with native copper. El Dorado County.
 469. Chalcopyrite, with iron. El Dorado County.
 470. Carbonate of copper. Grass Mountain, El Dorado County.

471. Cuprite; erubescite; malachite. El Dorado County.
472. Carb. of copper. El Dorado County.
473. Bornite. El Dorado County.
474. Chalcopyrite. El Dorado County.
475. Cuprite. Home Lead, El Dorado County.
476. Carb. of copper. El Dorado County.
477. Azurite. El Dorado County.
478. Azurite. El Dorado County.
479. Carb. of copper. El Dorado County.
480. Bornite. Cosumnes River.
481. Bornite. Cosumnes River.
482. Carb. of copper. Home Lead, El Dorado County.
483. Azurite. Home Lead, El Dorado County.
484. Quartz, colored by copper. El Dorado County.
485. Azurite. Sutter Mine, Coloma.
486. Chalcopyrite. El Dorado County.
487. Malachite. El Dorado County.
488. Chalcopyrite. El Dorado County.
489. Chalcopyrite. Fairmount, El Dorado County.
490. Bornite, with garnets. Cosumnes River.
491. Chrysocolla; malachite. Green Mountain, El Dorado County.
492. Croppings (copper ore). Near Coloma.
493. Chalcopyrite. Liberty Ranch, El Dorado County.
494. Bornite; chalcopyrite; quartz. Cosumnes River.
495. Malachite on serpentine formation. Green Mountain, El Dorado County.
496. Chalcopyrite. Green Mountain, El Dorado County.
497. Copper ore. Green Mountain, El Dorado County.
498. Chalcopyrite. Gordon Mountain, El Dorado County.
499. Copper ore. Home Lead, El Dorado County.
500. Carb. of copper; sulphurets. Tear Rip Mine.
501. Magnesia rock, colored by copper. Green Mountain.
502. Copper ore. El Dorado County.
503. Malachite, with iron ore. El Dorado County.
504. Chrysocolla. El Dorado County.
505. Carb. of copper. Home Lead, El Dorado County.
506. Carb. of copper. Cosumnes River.

507. Chalcopyrite. Greenhorn Mountain.
508. Malachite. Greenhorn Mountain.
509. Oxide of copper and carbonates. Greenhorn Mountain.
510. Carb. of copper. Greenhorn Mountain.
511. Copper croppings, with iron. El Dorado County.
512. Malachite. Home Lead, El Dorado County.
513. Carb. of copper. Home Lead, El Dorado County.
514. Chalcopyrite; bornite; iron ore. Green Mountain, El Dorado County.
515. Chalcopyrite; azurite. El Dorado County.
516. Carb. of copper. El Dorado County.
517. Native copper. Burra Burra Mine, AUSTRALIA.
518. Native copper. Lake Superior.
519. Chrysocolla.
520. Chrysocolla. ARIZONA.
521. Azurite; malachite; quartz.
522. Bornite, with garnets. El Dorado County.
523. Bornite, with garnets. El Dorado County.
524. Azurite. Chessy by Lyons, FRANCE.
525. Azurite, with malachite. Bulach.
526. Chalcopyrite. California.
527. Native copper. Cliff Mine, Lake Superior.
528. Cuprite (solid). Chessy by Lyons, FRANCE.
529. Chalcopyrite, with malachite. Wittichen, Black Forest, GERMANY.
530. Carb. copper, with tourmaline. California.
531. Carb. copper. El Dorado County.
532. Bornite. California.
533. Melaconite; malachite. Cornwall, ENGLAND.
534. Copper ore. Campo Seco, Calaveras County.
535. Native copper on calcite. Lake Superior.
536. Native copper. Del Norte County.
537. Native copper. Lake Superior.
538. Bornite, with a small percentage carb. copper.
539. Native copper. Lake Superior.
540. Malachite, azurite, and domeykite. Dittenburg, Nassau.
541. Native copper. Lake Superior.
542. Copper ore. COLORADO.

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543. Chalcopyrite; erubescite. Amador County.
545. Bornite. California.
546. Native copper. Lake Superior.
547. Native copper. Lake Superior.
548. Chalcopyrite. Ione Valley.
549. Chalcopyrite. Ione Valley.
550. Chalco-iron pyrites. Calaveras County.
551. Mixed chalco and iron pyrites. Calaveras County.
552. Gold-bearing chalco-iron pyrites. Nevada County.
553. Gold-bearing chalco and galenite. Placer County.
554. Enargite (Cu. S. As.), with baryta. Morning Star Mine,
Alpine County.
555. Chalcopyrite. California.
556. Chalcopyrite. California.
556a. Chalcopyrite. Placer County.
557. Copper pyrites; malachite. Duttonberg, Nassau.
557a. Partzite (copper, silver, lead, antimony, iron); galenite.
Comanche Mine, Mono County.
558. Chalcopyrite, with bornite. California.
559. Chalcopyrite. Union Mine, Copperopolis, Calaveras County.
560. Chalcopyrite. Cranley, CONNECTICUT. (?)
561. Chalcopyrite in calcite. Dittenburg, Nassau, GERMANY.
562. Chalcopyrite. Amador County.
563. Chalcopyrite; malachite; galenite. Dittenburg, Nassau.
564. Partzite (copper, silver, lead, antimony, iron). Blind
Springs, Mono County.
565. Partzite (copper, silver, lead, antimony, iron). Blind
Springs, Mono County.
566. Chalcopyrite on quartz. Dittenburg, Nassau.
567. Partzite. Comanche Mine.
568. Chalcopyrite. Campo Seco.
569. Chalcopyrite; bornite; carb. copper. California.
570. Chalcopyrite. Rummelsberg, Hartz Mountain.
571. Chalcopyrite. California.
572. Chalcopyrite. El Dorado County.
573. Chalcopyrite. Liberty Ranch, El Dorado County.
574. Chalco and iron pyrites. Calaveras County.
575. Chalcopyrite and quartz. Dittenburg, Nassau, GERMANY.

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576. Chalcopyrite on quartz. Placer County.
577. Chalcopyrite. California.
578. Chalcopyrite. Coultersville, Mariposa County.
579. Tetrahedrite. California.
580. Chalcopyrite with bornite. Mazatlan, MEXICO.
581. Chalcopyrite. Dittensburg, Nassau.
582. Chalcopyrite. Raute Zobten, Thuringia, GERMANY.
583. Chalcopyrite, with galenite and malachite.
584. Bournonite; sulphuret of copper and lead, with antimony.
Hartz Mountains, GERMANY.
585. Bournonite. Neudorf, GERMANY.
586. Cuprite, with lead and carbonate copper. ARIZONA.
587. Cuprite, with lead and carbonate copper. ARIZONA.
588. Chalcopyrite; galena, with dolomite. Dittensburg, Nassau.
589. Malachite. SIBERIA.
590. Malachite. El Dorado County.
591. Malachite. ARIZONA.
592. Malachite. Colusa County.
593. Malachite. El Dorado County.
594. Copper ore. El Dorado County.
595. Copper ore. Cosumnes River.
596. Malachite. Dittensburg, Nassau.
597. Malachite on sandstone. Bulach.
598. Malachite. Monitor Mine, Alpine County.
599. Malachite. AFRICA.
600. Chrysocolla. ARIZONA.
601. Malachite. Cornwall, ENGLAND.
602. Azurite. Cornwall, ENGLAND.
603. Malachite. Ural Mountains.
604. Malachite. Bulach.
605. Fibrous malachite. Black Forest, GERMANY.
606. Fibrous malachite.
607. Copper ore. Chessy, FRANCE.
608. Azurite. Eureka District, NEVADA.
609. Azurite. NEVADA.
610. Malachite.
611. Fibrous malachite. SIBERIA.
612. Malachite. Neubach, GERMANY.

- 613. Carb. copper. Rheinbreitenbach, GERMANY.
 - 614. Malachite. SIBERIA.
 - 615. Malachite. South Fork American River.
 - 616. Fine malachite. SIBERIA.
 - 617. Malachite. AUSTRALIA.
 - 618. Copper and silver ore. Humboldt County, NEVADA.
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TANTALUM.

- 1. Tantalite (a rare mineral). SWEDEN.
 - 2. Yttrotantalite. SWEDEN.
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MOLYBDENUM.

- 1. Molybdenite (sulphuret of molybdenum). Placer County.
- 2. Molybdenite, with copper pyrites. Cottonwood Cañon.
- 3. Molybdenite. Amity Co., New York.
- 4. Molybdenite. Manhattan Island, New York.
- 5. Molybdenite. El Dorado County.
- 6. Molybdenite. El Dorado County.
- 7. Molybdenite.
- 8. Molybdenite, with chalcopyrite. Cosumnes River, Sacramento County.
- 9. Molybdenite. Baden, GERMANY.
- 10. Molybdenite. Schappack Valley, GERMANY.
- 11. Molybdenite. Placer County.
- 12. Molybdenite on chalcopyrite.

TUNGSTEN.

1. Tungstite (wolfram). Schneeberg, SAXONY.
 2. Tungstite. Cornwall, ENGLAND.
 3. Sheelite (tungstate of lime).
 4. Sheelite. Zumwald, GERMANY.
 5. Tungstite. Zumwald, GERMANY.
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URANIUM.

1. Uranite (phosphate of uranium). Cornwall, ENGLAND.
 2. Pitchblende (oxyd of uranium). BOHEMIA.
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ANTIMONY (STIBIUM).

1. Stibnite (sulphuret of antimony). Mountain Meadows.
2. Stibnite. Humboldt, NEVADA.
3. Stibnite. Coast Range.
4. Stibnite. Reese River.
5. Stibnite. Montezuma, Humboldt.
6. Stibnite. MEXICO.
7. Stibnite. Humboldt, NEVADA.
8. Stibnite. Butte Mountain, Humboldt, NEVADA.
9. Cervantite, with lead, silver, and gold. Montezuma.
10. Cervantite. Arabic District, Trinity County.
11. Oxide of antimony, lead, and iron. Humboldt, NEVADA.
12. Stibnite. Cosmopolitan, Reville District, NEVADA.
13. Lead and oxide of antimony, Humboldt, NEVADA.
14. Stibnite. Wolfrado, BADEN.
15. Stibnite. Santa Clara.
16. Stibnite. Tejon Pass, California.

17. Meneghinite (sulph. antimony and sulph. lead). ITALY.
18. Stibnite. Hay Mountain.
19. Tinkenite; hetermorphite (sulph. antimony and lead).
Humboldt County.
20. Tinkenite. Muensterthal, GERMANY.
21. Hetermorphite (zunderary). Brisgau, GERMANY.

ARSENIC.

1. Auripigmentum (yellow orpiment). MOLDAVIA.
2. Pharmacolite (arsenate of lime).
3. Orpiment (auripigmentum; sulphuret of arsenic). WITT-
CHEN.
4. Orpiment (auripigmentum; sulphuret of arsenic). MOL-
DAVIA.
5. Realgar (red sulphuret of arsenic). HUNGARY.
6. Native arsenic. Schneeberg, SAXONY.
7. Native arsenic. Reese River, IDAHO.
8. Arsenious acid; ferric arsenolite.
9. Orpiment. Tajoma, HUNGARY.

BISMUTH.

1. Native bismuth (very poor specimen). Monro Co., CON-
NECTICUT.
2. Native bismuth. Altenberg, SAXONY.
3. Native bismuth, with erythrite (cobaltblueth), Annaberg,
SAXONY.
4. Native bismuth, with erythrite (cobaltblueth), Annaberg,
SAXONY.

LEAD ORES.

1. Galenite (sulphuret of lead; galena). Cottonwood, UTAH.
2. Galenite; fine crystals.
3. Galenite. Spartanburg, NORTH CAROLINA.
4. Crystals of galenite.
5. Galenite. UTAH.
6. Galenite. Ogden, UTAH.
7. Galenite. Rush Valley, Salt Lake.
8. Galenite. UTAH.
9. Galenite. St. Catalina, Lower California.
10. Argentiferous galenite. UTAH.
11. Galenite. Humboldt County.
12. Argentiferous galenite. Durango, MEXICO.
13. Argentiferous galenite. El Baden, Copala, MEXICO.
14. Galena. with copper and antimony. Hope Mountain,
Eagan Cañon, UTAH.
15. Argentiferous galenite, with antimony and iron. Triomfo,
Baja California.
16. Argentiferous lead ore. Big Cottonwood, UTAH.
17. Mimetite; pyromorphite (arsenical phosphate of lead).
Phœnixville, PENNSYLVANIA.
18. Mimetite; pyromorphite. Nassau, GERMANY.
19. Wulfenite (molybdate of lead). Bleiberg, AUSTRIA.
20. Wulfenite (molybdate of lead). Bleiberg, AUSTRIA.
21. Wulfenite. Bleiberg, AUSTRIA.
22. Galenite. Humboldt, NEVADA.
23. Galenite. Nevada County.
24. Argentiferous galenite. Wittmer, Kellinger Mine, Shasta
County.
25. Fine cubes of galenite. ILLINOIS.
26. Galenite; cerussite; stibnite. Blind Springs, Mono County.
27. Galenite. Sheba Mine, Owens River.
28. Galenite. UTAH.
29. Galenite. Blind Springs, Mono County.
30. Galenite. Reese River, IDAHO.

31. Galena; sphalerite, with silver. West Mountain, UTAH.
32. Galena; sphalerite, with silver. West Mountain, UTAH.
33. Galena; sphalerite, with silver. West Mountain, UTAH.
34. Galena; sphalerite.
35. Galenite; cerussite. Independence, Washoe District.
36. Galena. Perseverance Mountain, Tuolumne County.
37. Galena. Santa Clara County.
38. Galena and pyrites. Placer County.
39. Galena. Cornucopia, Owens River.
40. Croppings; galena, with carbonate of lead. Nevada County.
41. Galena. Montgomery District, Hot Springs, Mono County.
42. Carbonate of lead. Ignazia Mine, Cerro Gordo District, Inyo County.
43. Carbonate of lead, with silver. Comanche Mine, Blind Springs, Mono County.
44. Galena, with azurite and malachite. Sheba Mine, Owens River.
45. Argentiferous galena. Mono County.
46. Galena, with chalcopyrite. Calaveras County.
47. Argentiferous galena. Blind Springs, Mono County.
48. Argentiferous galena. Sheba, Owens River.
49. Argentiferous galena. Sheba, Owens River.
50. Argentiferous galena. Sheba, Owens River.
51. Galena, with carb. copper. Slate Mountain, Owens River.
52. Galena, with carb. copper. Slate Mountain, Owens River.
53. Argentiferous galena. Humboldt County.
54. Argentiferous galena. Truckee River, NEVADA.
55. Galena, with antimony. NEVADA.
56. Galena, with antimony. NEVADA.
57. Galena, with antimony. NEVADA.
58. Cerussite. White Pine, NEVADA.
59. Galenite. Ruby Valley, near Elko, NEVADA.
60. Argentiferous galenite; \$72, silver, per ton. Toe Mine, West Walker River.
61. Argentiferous galenite. Shoe City.
62. Argentiferous galenite, with pyrites. Humboldt County.
63. Galenite. Genoa, NEVADA.
64. Galenite, with pyrites. L. Chief, Humboldt, NEVADA.

65. Galenite. Alvarez Mine, Washington District, NEVADA.
66. Galenite. Humboldt County, NEVADA.
67. Galenite. Humboldt County, NEVADA.
68. Quartz, with carbonate of lead. Montgomery Mine, Humboldt.
69. Galenite. Steamboat Springs, Carson.
70. Argentiferous galenite. Washoe Valley.
71. Galenite. Silver Star, NEVADA.
72. Argentiferous galena; \$40, silver, per ton. NEVADA.
73. Argentiferous galena. Reese River.
74. Cerussite; galenite. Esmeralda County, NEVADA.
75. Galenite, with silver. Echo District, Humboldt County, NEVADA.
76. Cerussite (carb. lead). Winnemucca, Humboldt County.
77. Argentiferous galena. White Pine, NEVADA.
78. Argentiferous galena. White River.
79. Galenite (arg.) UTAH.
80. Galenite (arg.); quondary. Rush Valley, UTAH.
81. Galenite (arg.) Cottonwood Cañon, UTAH.
82. Galenite, argentif., with oxyd of manganese. Rush Valley, Salt Lake.
83. Galenite, with chalcopryite. Egan, Carson, UTAH.
84. Argentiferous galenite; \$60, silver, per ton. UTAH.
85. Galenite, with carb. copper. Rush Valley.
86. Galenite, with carb. copper. Rush Valley.
87. Galenite. Egan Cañon, UTAH.
88. Galenite. Potomac, Rush Valley.
89. Poor galenite, with oxyd of manganese. Cottonwood Cañon, UTAH.
90. Massicot, artificial (protoxide of lead; litharge). UTAH.
91. Galenite.
92. Galenite. Blue Wing, MONTANA.
93. Galenite. El Dorado River, ARIZONA.
94. Galenite, with carb. of copper. Blue Wing, MONTANA.
95. Galenite, with carb. of copper. Blue Wing, MONTANA.
96. Galenite. Colorado River, ARIZONA.
97. Galenite. ARIZONA.
98. Galenite. WISCONSIN.

99. Galenite in fine cubic crystals. ILLINOIS.
100. Galenite in fine cubic crystals. ILLINOIS.
101. Galenite. California.
102. Galenite. Chihuahua, MEXICO.
103. Galenite.
104. Galenite (one crystal). ILLINOIS.
105. Galenite, with chalcopyrite in calcite.
106. Galenite, with iron pyrites. Coralia, Sinaloa, MEXICO.
107. Fibrous galenite. WISCONSIN.
108. Galenite. Lower California.
109. Galenite, with cerussite (carb. of lead). Tabac, ARIZONA.
110. Wulfenite in calcite. Cumberland, ENGLAND.
111. Mimetite (arsenate of lead).
112. Cerussite.
113. Galenite, with siderite (carbonate of iron) finely crystallized. Hartz Mountains.
114. Minium (oxyd of lead). California.
115. Lead, antimony, and silver. UTAH.
116. Pyromorphite and mimetite (phosphate and arsenate of lead).
117. Galenite. California.
118. Galenite, with pyrites. California.
119. Galenite. Reese River.
120. Galenite, with pyrites. Pioneer City, California.
121. Galenite. Pioneer City, California.
122. Galenite. NEVADA.
123. Galenite.
124. Galenite and baryta (heavy spar).
125. Galenite. Schappack Valley.
126. Fine-grained galena.
127. Fine-grained galena.
128. Galena. Yosemite Valley.
129. Galena, with chalcopyrite and carb. of copper.
130. Galenite, with geocronite (sulphuret of lead with arsenic and antimony).
131. Galenite imbedded in dolomitic spar (magnesian limespar).
132. Galenite. ILLINOIS.
133. Crystals of galenite. Mary Mountain.
134. Galenite. California.

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135. Cubes of galena. ILLINOIS.
 136. Galenite. California.
 137. Galenite in calcite. GERMANY.
 138. Cerussite (carb. of lead). Zellerfeld, Hartz Mountains,
GERMANY.
 139. Cerussite. Aachen, PRUSSIA.
 140. Cerussite. Salt Lake.
 141. Cerussite. NEW JERSEY.

TITANIUM.

1. Rutile (oxyd of titanium). St. Gothard, SWITZERLAND.
 2. Rutile (titanic acid). NORTH CAROLINA.
 3. Rutile, with hornblende. NORWAY.
 4. Rutile imbedded in quartz.
 5. Fine specimen rutile. Tyrol.
 6. Rutile. St. Gothard, SWITZERLAND.
 7. Octahedrite (anatase, oxyd of titanium). BAVARIA.
 8. Nigrine (var. of rutile), with some oxyd of iron. BAVARIA.
 9. Rutile. SAXONY.
 10. Rutile.
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TIN AND TIN ORES.

1. Cassiterite. Hemercal.
2. Cassiterite. Hemercal.
3. Cassiterite, with copper. Cornwall, ENGLAND.
4. Cassiterite, with copper. Cornwall, ENGLAND.
5. Cassiterite. Great Wheal Mine, Cornwall.
6. Cassiterite, with copper. Cornwall.
7. Tin sand (stream tin). PERU.
8. Cassiterite. Hemercal.
9. Cassiterite. Cornwall.

10. Cassiterite. ENGLAND.
 11. Cassiterite. Los Angeles County.
 12. Cassiterite. Hemercal.
 13. Cassiterite. Hemercal.
 14. Cassiterite. Hemercal.
 15. Cassiterite. AUSTRALIA.
 16. Cassiterite. Los Angeles County.
 17. Stream tin (sand). ENGLAND.
 18. Stream tin. BOLIVIA.
 19. Stream tin. AUSTRALIA.
 20. Cassiterite. Cornwall.
 21. Cassiterite. Bottalak Mine, ENGLAND.
 22. Tin ore. Dobroth, Cornwall.
 23. Cassiterite. East Wheal, Cornwall.
 24. Cassiterite. Levant Mine, Cornwall.
 25. Cassiterite. Schlarhenwalde, GERMANY.
 26. Cassiterite. Schlarhenwalde, GERMANY.
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ZINC ORES.

1. Zinc blende; sphalerite; sulphuret of zinc.
2. Smithsonite; carbonate of zinc.
3. Sphalerite; argentiferous zinc blende. Humboldt.
4. Calamine (silicate of zinc). NEW JERSEY.
5. Smithsonite; calamine. TENNESSEE.
6. Zinc ore. Copala, MEXICO.
7. Sphalerite.
8. Sphalerite and pyrites. Placer County.
9. Sphalerite and pyrites. Sheba Mine, Humboldt County.
10. Sphalerite; smithsonite. NEW JERSEY.
11. Zinc blende, with red zincite; galenite. Humboldt County.
12. Zinc blende imbedded in shell lime. Wurtemberg.
13. Zinc blende and chalcopyrite. California.
14. Zinc blende; galena; copper pyrites. Cascade Mountain, Santa Anna River, California.

15. Sphalerite; chalcopyrite, with silver, \$80 per ton. Alvarez Mine.
16. Sphalerite. California.
17. Sphalerite. Carson, NEVADA.
18. Calamine. Humboldt, NEVADA.
19. Sphalerite. ILLINOIS.
20. Calamine. Humboldt County.
21. Calamine. TENNESSEE.
22. Calamine. Kaeruchen, GERMANY.
23. Sphalerite. NEW JERSEY.
24. Sphalerite. GERMANY.
25. Sphalerite. Muensterthal, GERMANY.
26. Sphalerite. Muensterthal, GERMANY.
27. Hydrous zinc (hydrozincite). Katzenberg, Maehren, GERMANY.
28. Zincite (red oxide of zinc). Katzenberg, Maehren, GERMANY.
29. Zincite, with franklinite (iron, zinc, and manganese). Sussex County, NEW JERSEY.
30. Zincite, with franklinite (iron, zinc, and manganese). Sussex County, NEW JERSEY.
31. Sphalerite. California.
32. Sphalerite, with arsenical pyrites. Humboldt County.
33. Sphalerite. Nassau, GERMANY.
34. Sphalerite. Neudorf, Hartz Mountain.
35. Sphalerite; galenite; pyrites of iron. NEW JERSEY.
36. Calamine. Kandern, BADEN.
37. Calamine. NEW YORK.

NICKEL.

1. Niccolite; arsenide of nickel (and copper). Schneeberg, GERMANY.
2. Niccolite. Schneeberg.
3. Nickel pyrites, with chalcopyrite. SAXONY.

4. Chathamite (nickel and cobalt). CONNECTICUT.
 5. Niccolite, with black earthy cobalt. Alpirsbach.
 6. Sulphuret of iron and nickel. Nevada County, California.
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COBALT.

1. Erythrite (arsenate of cobalt).
 2. Arsenical cobalt. CONNECTICUT.
 3. Cobalt ore. CONNECTICUT.
 4. Cobalt ore, with green erythrite. Schneeberg, GERMANY.
 5. Smaltite (arsenate of cobalt; iron, and nickel), with erythrite; "cobalt-bloom." Schneeberg, GERMANY.
 6. Smaltite. Schneeberg, SAXONY.
 7. Smaltite. CONNECTICUT.
 8. Cobaltite in crystals (glanz cobalt). Tunaberg, SWEDEN.
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MANGANESE.

1. Pyrolusite (binoxid of manganese). Bedrock, San Francisco County.
2. Pyrolusite. Alameda County.
3. Dendritic manganese.
4. Hausmanite (oxyd of manganese).
5. Dendritic manganese. Ilmenan, THURINGIA.
6. Pyrolusite. California.
7. Pyrolusite. THURINGIA.
8. Pyrolusite. High Rock, Humboldt County.
9. Braunite (oxyd and silicate of manganese). Ilmenan, THURINGIA.
10. Pyrolusite. Ilmenan, THURINGIA.
11. Pyrolusite concretion.
12. Psilomelane (oxyd of manganese and baryta). Eigersberg, GERMANY.

13. Massive manganite. GERMANY.
14. Psilomelane. GERMANY.
15. Pyrolusite. Alpine County.
16. Psilomelane. Neuenburg, GERMANY.
17. Psilomelane. Neuenburg, GERMANY.
18. Dentrites of manganese. California.
19. Dentrites of manganese. ILLINOIS.
20. Dentrites of manganese. Amador County.
21. Dentrites of manganese. Reese River, NEVADA.
22. Manganite. Ilmenan, THURINGIA.

IRON ORES.

1. Limonite, with iron pyrites.
2. Vivianite (phosphate of iron).
3. Brown iron ore. Goethite, BOHEMIA.
4. Hematite. BOHEMIA.
5. Caxoxenite (hydrous phosphate of iron). NEW JERSEY.
6. Copperas (hydrous sulph. iron). PERSIA.
7. Iron pyrites. Burough Mine.
8. Carbonate of iron. Sonora, MEXICO.
9. Brown ironstone. Neuenburg, GERMANY.
10. Micaceous iron; hematite. CHILI.
11. Hematite.
12. Chalybite; carb. iron. Placer County.
13. Chalybite (also called siderite). Placer County.
14. Chalybite. Hartz Mountain, GERMANY.
15. Chalybite; spheroiderite. Heinheim, Hanau.
16. Limonite; hematite. Placer County.
17. Limonite.
18. Red ochre. Nevada County.
19. Oolitic iron.
20. Fibrous hematite. Staten Island.
21. Limonite. Placer County.
22. Hematite. Pilot Knob, MISSOURI.

23. Magnetite. Monroe County.
24. Magnetite.
25. Fibrous hematite. Staten Island.
26. Fibrous stalactitic iron. Placer County.
27. Iron jasper. Sierra County.
28. Limonite. Placer County.
29. Brown iron. Glasskopf, GERMANY.
30. Limonite; stalactite. CONNECTICUT.
31. Limonite. Placer County.
32. Specular iron (hematite). Baden, GERMANY.
33. Oolitic iron.
34. Hematite. Iron Mountain, MISSOURI.
35. Limonite. Salisbury, CONNECTICUT.
36. Limonite, kidney-shaped.
37. Oolitic iron.
38. Specular iron. Baden.
39. Limonite. Placer County.
40. Copperas. Hartz Mountain.
41. Marcasite. Grass Valley.
42. Marcasite. Grass Valley.
43. Pyrite. Amador County.
44. Pyrite. Amador County.
45. Micaceous iron. California.
46. Pyrite. Liberty Ranch.
47. Pyrite, with chalcopyrite. Amador County.
48. Pyrite. Meehanier, Excelsior.
49. Limonite, with chalcopyrite and azurite. Sacramento County.
50. Hematite. Nevada County.
51. Pyrites. California.
52. Quartz, with limonite.
53. Magnetite (loadstone). California.
54. Iron ore. Humboldt County, NEVADA.
55. Magnetite. CANADA.
56. Specular iron (hematite). Henness Pass.
57. Ironstone. Placer County.
58. Limonite and pyrite on quartz.
59. Specular iron. California.

60. Specular iron. Iron Mountain, Humboldt County, NEVADA.
61. Magnetite.
62. Iron pyrites. Excelsior District, Nevada County.
63. Hematite and limonite. Henness Pass.
64. Specular iron. Henness Pass.
65. Magnetite. California.
66. Limonite. California.
67. Specular iron ore. Sierra Valley, near Henness Pass.
68. Brown iron ochre. Sacramento County.
69. Iron ore. Plumas County.
70. Pyrite. Placer County.
71. Brown iron, with copper. Henness Pass.
72. Micaceous iron. Henness Pass.
73. Hematite.
74. Limonite.
75. Magnetite. Grass Valley.
76. Iron ore. Pilot Knob, MISSOURI.
77. Limonite. PENNSYLVANIA.
78. Limonite (glasskopf, fibrous brown iron ore). NEW YORK.
79. Hematite; limonite.
80. Quartz colored a beautiful red by iron. Iserlohn, GERMANY.
81. Hematite.
82. Granular clay ironstone.
83. Oolitic iron (pear iron ore); limonite.
84. Iron ore, mixed hematite and limonite.
85. Iron ore.
86. Brown iron ore.
87. Brown iron ore.
88. Oolitic iron ore.
89. Brown ironstone, with oxyd of manganese.
90. Hematite.
91. Iron pyrites. ARIZONA.
92. Iron ore. Salt Lake.
93. Iron slag in nest, from Keuper formation, Fruerback.
94. Magnetite.
95. Bean ore. Fanenberg, Wurtenberg Alps.
96. Iron ore. Newburg, NEW YORK.
97. Micaceous iron. Chihuahua, MEXICO.

98. Fibrous hematite. BOHEMIA.
99. Iron ore. Lake Superior.
100. Hematite. IDAHO.
101. Oolitic iron.
102. Brown iron ore.
103. Chalybite (carb. of iron). Roxbury, CONNECTICUT.
104. Limonite. PENNSYLVANIA.
105. Hematite. Tioga County, PENNSYLVANIA.
106. Iron ore. VERMONT.
107. Hematite.
108. Micaceous iron ore. Black Rock, Humboldt County, NEVADA.
109. Red iron ochre, with brown spar. Neuenburg.
110. Micaceous iron ore. Walker River, NEVADA.
111. Micaceous iron ore. NEW YORK.
112. Specular iron ore. Black Rock, Humboldt.
113. Specular iron ore. South of Alabama District, Humboldt.
114. Iron and copper pyrites. Humboldt.
115. Iron ore; clod of bean ore. Salmenelinger, GERMANY.
116. Specular iron; rhombohedral prism. Black Rock, NEVADA.
117. Specular iron. Black Rock, NEVADA.
118. Limonite. Walker River.
119. Specular iron, with copper ore. Belle Mountain, Humboldt.
120. Magnetite, with limonite. Belle Mountain, Humboldt.
121. Specular iron, with limonite. Belle Mountain, Humboldt.
122. Specular iron. California.
123. Specular iron. Henness Pass.
124. Iron pyrites. Bannock, MONTANA.
125. Iron pyrites. Grass Valley.
126. Iron pyrites. Grass Valley.
127. Iron pyrites (water worn). Grass Valley.
128. Polished iron pyrites. Singuagueo, MEXICO.
129. Hematite. California.
130. Red iron stone (slaty).
131. Hematite. Newberg, NEW JERSEY.
132. Hematite, with limonite.
133. Oolitic iron (bean ore); limonite. HUNGARY.
134. Croppings; iron ore (poor). California.

135. Brown iron ore (kidney shaped).
136. Brown iron ore; glasskopf. Neuenberg, GERMANY.
137. Brown iron ore; glasskopf. Neuenberg, GERMANY.
138. Specular iron; tourmaline. Henness Pass, California.
139. Yellow iron ochre. California.
140. Hematite and brown iron ore. GERMANY.
141. Silicate of iron. Placer County.
142. Hematite.
143. Specular iron. Elba.
144. Magnetite. WISCONSIN.
145. Octahedrous magnetite. Coloma, El Dorado County.
146. Franklinite (oxyd of iron; zinc; mang.). NEW JERSEY.
147. Magnetite. El Dorado County.
148. Brown iron ore (scaly, with fossils).
149. Specular iron ore.
150. Specular iron, with rutile (titanic oxyd or acid). St. Gothards, SWITZERLAND.
151. Specular iron on quartz. Grass Valley.
152. Magnetite. Sierra County, California.
153. Limonite. Staten Island, NEW YORK.
154. Magnetite in chloritoid (silicate of iron, magnesia, and alumina), with dyoprid. Zitterthal, Tyrol.
155. Iron glance, with rutile (titanic oxyd). Elba.
156. Magnetite in crystals.
157. Magnetic iron in chlorite, or chloritoid. Zitterthal, Tyrol.
158. Hematite, limonite mixed. Sierras.
159. Hematite. California.
160. Magnetite in chlorite. Zitterthal, Tyrol.
161. Hematite. NEW YORK.
162. Specular iron on quartz. Mt. St. Gothard.
163. Specular iron. ARIZONA.
164. Magnetite. ARKANSAS.
165. Oolitic iron (pea ore); limonite. GERMANY.
166. Hematite. Sierra County.
167. Hematite. Elba.
168. Hematite on calcite.
169. Micaceous iron, with baryta. St. Gothard, SWITZERLAND.
170. Hematite; limonite. GERMANY.

171. Hematite. Pilot Knob, MISSOURI.
172. Hematite. Neuenburg, GERMANY.
173. Fibrous limonite; hematite. Schoenmunznach, GERMANY.
174. Fibrous limonite; hematite. Schoenmunznach, GERMANY.
175. Fibrous brown iron ore (glasskopf). Neuenburg.
176. Goethite, with limonite. Neuenburg.
177. Pyrrhotite (magnetic pyrites). Bademair, BAVARIA.
178. Pyrrhotite. NORWAY.
179. Iron pyrites on quartz, changing to limonite.
180. Iron pyrites.
181. Crystals iron pyrites. Grass Valley.
182. Iron pyrites containing gold. Nevada County.
183. Iron pyrites, from island of Elba.
184. Slickensides; sulphuret of iron found in the middle of vein.
185. Ledge of pyrites. Table Mountain, Butte County.
186. Nodule of pyrites. Forest Hill.
187. Gold-bearing pyrites. Grass Valley.
188. Marcasite. Ione Valley.
189. Marcasite. Ione Valley.
190. Marcasite. Ione Valley.
191. Marcasite. Placer County.
192. Iron pyrites (pyrite). California.
193. Iron pyrites, with copper. Ione Valley, Amador County.
194. Mixed iron and copper pyrites. Amador County.
195. Iron pyrites; chalcopyrite containing gold. El Dorado County.
196. Iron pyrites. Sarbrueken, GERMANY.
197. Iron pyrites. Siskiyou.
198. Pyrites of iron and copper. Wild Yankee, Monitor Mountain, Alpine County.
199. Iron pyrites on fossils; limestone.
200. Sulphurets, with vivianite (phosphate of iron).
201. Sulphurets, with vivianite; a poor specimen.
202. Pyrites on quartz. California.
203. Pyrites on lime.
204. Pyrites, with chalcopyrite (copper pyrites). Shasta County.
205. Magnetite. Mono County, California.
206. Pyrite in crystals.

207. Pyrite changed by oxidation ("weathering") to hematite.
208. Pyrites. NEW YORK.
209. Pyrites. Boulder, Lake Superior.
210. Iron pyrites. El Dorado County.
211. Sulphurets imbedded in clay slate. Biclighheim.
212. Crystals; sulphurets. Elba.
213. Sulphurets changed by weathering. California.
214. Crystals of iron pyrites. Lantham, OREGON.
215. Mispickel (arsenopyrite) crystals.
216. Arsenopyrite. Ackley Mine, Sierra County.
217. Arsenopyrite. NORTH CAROLINA.
218. Arsenopyrite in crystals (in a bottle). Andreasberg, Hartz Mountains.
219. Pyrites on quartz. Near Lake Erie, OHIO.
220. Arsenical pyrites. California Mountain, Monterey County.
221. Mispickel in talcose slate. El Dorado County.
222. Leucopyrite (arsenical). SILESIA.
223. Arsenical pyrites. Reese River, NEVADA.
224. Arsenical pyrites. NORTH CAROLINA.
225. Mispickel. Freiberg, GERMANY.
226. Iron pyrites. California.
227. Arsenical and iron pyrites on calcite. Placer County.
228. Decomposed arsenical pyrites. California.
229. Iron pyrites on quartz.
230. Iron pyrites on quartz.
231. Iron pyrites on quartz, with some siderite (carbonate of iron). Placer County.
232. Iron pyrites.
233. Arsenical pyrites in steatite. Toledo, Tuolumne County, California.
234. Pyrites in serpentine.
235. Pyrrhotite (magnetic pyrites). El Dorado County.
236. Auriferous pyrites. Allison's Ranch, Grass Valley.
237. Chalybite on quartz. Placer County.
238. Chalybite. From MISSOURI.
239. Chalybite on quartz. California.

CHROME IRON ORES.

- 240 (1). Chromite, with silicate of chromium. Monterey County.
- 241 (2). Chromite. Placer County.
- 242 (3). Chromite in serpentine and silicate of chromium.
Placer County.
- 243 (4). Chromite. Tulare County.
- 244 (5). Chromite. Zitterthal, Tyrol.
- 245 (6). Chromite. VERMONT.
- 246 (7). Chromite. Devil's Gate District, UTAH.
- 247 (8). Chromite, with rodochrosite (carbonate of manganese)
and silicate of chromium. Coast Range, California.
- 248 (9). Chromite. PENNSYLVANIA.

ALUMINIUM.

- 1. Native alum. Smyrna, ASIA.
 - 2. Corundum. SWITZERLAND.
 - 3. Ruby; corundum. (Seven specimens.)
 - 4. Ruby; spinel; crystals in a bottle (alumin., with magnesia).
 - 5. Ruby; spinel. CEYLON. (In bottle.)
 - 6. Ruby; spinel. IDAHO. (Seven specimens in bottle.)
- See also SILICATES, Nos. 233, 273, 274, 275, 276, 277, 277a, 278, where SPINELS, with other substances, as graphite, corundum, etc., are included for, perhaps, no very evident reasons.
- 7. Sapphire or sapphirine (var. ruby; corundum; [alumin.; magn.; silica]). IDAHO. (Five pieces in bottle.)
 - 8. Wavellite (phosphate of alumina).
 - 9. Turquoise (also phos. of al.). Jordan Mill, near Breslau, GERMANY.
 - 10. Lazulite (phos. of alumin. and magnesia). GERMANY.
 - 11. Cryolite (fluat of alumina and soda). GREENLAND.
 - 12. Lazulite. Steinmark, GERMANY.
 - 13. Lazulite. Steinmark, GERMANY.
 - 14. Metallic aluminium.

MAGNESIUM.

1. Brucite (nematite). Hoboken, NEW JERSEY.
2. Brucite (hydrate of magnesium). Hoboken, NEW JERSEY.
3. Brucite (hydrate of magnesium). Hoboken, NEW JERSEY.
4. Magnesite (carbonate of magnesium). Amity Co., NEW YORK.
5. Magnesite.
6. Magnesite (carb. mag.). Chester County, PENNSYLVANIA.
7. Magnesite.
8. Bitter spar (dolomite in lias). Gœningen.
9. Magnesite. Mahren, GERMANY.
10. Bitter spar. SWITZERLAND.
11. Dolomite (carb. calcium and magnesium). Amity, NEW YORK.
12. Magnesite.
13. Brown spar. Kremnitz, HUNGARY.
14. Dolomite. GERMANY.
15. Dolomite on gneiss.
16. Brown spar, imbedded in an ammonite.
17. Bitter spar. NEW JERSEY.
18. Brown spar on calcite. El Dorado County.
19. Dolomite. Orange County, NEW YORK.
20. Bitter spar. Tyrol.
21. Bitter spar on dolomite. Kaiserstahl, BADEN.
22. Crystal of dolomite. Lake Superior.
23. Spinel (oxyd of magnes. and aluminium). NEW JERSEY.

See also under SILICATES; Spinel (oxyd of magnesium and aluminium), Nos. 233, 273, 274, 275, 276, 277, 277a, 278, with other minerals, as Graphite, etc. These seem to have been included among the Silicates, for no very evident reason—perhaps through inadvertence.

See also under CALCITES, Nos. 11, 12, 13, "Dolomitic Calcite" (carb. lime and magnesia).

See also under SODIUM, Nos. 1 and 6, Hydroboracite and Boracite.

CALCIUM (LIME).

CALCITE (CARBONATE OF LIME).

1. Carbonate of lime. Mono County.
2. Fontainebleu limestone (fine). FRANCE.
3. Calcite. Napa County.
4. Calcite. Waldshut, BAVARIA.
5. Nail-headed calcite; iron pyrites. IDAHO.
6. Calcite. St. Gothards.
7. Calcite. Immenhausen, WURTEMBERG.
8. Carbonate of lime. Comstock Lode, NEVADA.
9. Calcite.
10. Carbonate of lime on quartz.
11. Dolomitic calcite on quartz. Placer County.
12. Dolomitic calcite on quartz.
13. Dolomitic calcite on quartz.

See also under MAGNESIUM, Nos. 8, 11, 14, 15, 19, 21, 22, Dolomites.

14. Concretions of carbonate of lime. Hot Springs, UTAH.
15. Calcite on quartz. Crown Point, Comstock Lode.
16. Calcite on quartz. Placer County.
17. Concretions of carbonate of lime. Mono Lake.
18. Calcite. Hudson River, NEW YORK.
19. Calcite on quartz. Placer County.
20. Concretions of carbonate of lime. KENTUCKY.
21. Concretions of carbonate of lime. El Dorado County.
22. Concretions of carbonate of lime. Owens Lake.
23. Carbonate of lime. Placer County.
24. Nail-headed calcite. Lias formation, Gomarnsgen.
25. Carbonate of lime. El Dorado County.
26. Calcite. Calaveras County.
27. Pisanite (sulphate iron and copper), in carbonate of lime.
Placer County.
28. Calcite, with iron pyrites. Dittenburg, Nassau.
29. Calcite on quartz. Placer County.
30. Calcspar stalactite. Calaveras County.

31. Calcite. New Windsor, CONNECTICUT.
32. Calcite. Dittenburg, Nassau.
33. Calcite. Andreasburg, Hartz Mountain.
34. Calcite. Dittenburg.
35. Calcite.
36. Calcite. Virginia City, NEVADA.
37. Calcite. Dittenburg.
38. Calcite. MEXICO.
39. Calcite from the Lias of Oesterdingen.
40. Calcite on clay. Wurtemberg.
41. Calcite. From Hedingen Lias, GERMANY.
42. Calcite. From Oesterdingen Lias, GERMANY.
43. Calcite on quartz. Lake Superior.
44. Calcite. California.
45. Calcite. Dittenburg.
46. Calcite. Lakeport, NEW YORK.
47. Calcite. California.
48. Three loose crystals of calcite. Birbigheim, GERMANY.
49. Stalactitic nodules between the shell limestone. Ludwigsburg, GERMANY.
50. Iceland spar (calcite). NEVADA.
51. Calcite. Reese River.
52. Calcite. Munster Valley, Black Forest, BADEN.
53. Calcite on quartz crystals. St. Anthony's Nose, Hudson River.
54. Calcite. California.
55. Calcite. Lake Superior.
56. Calcite. Weir's Cave, NEVADA.
57. Carbonate of lime (from the Keuper formation). Tuebingen, GERMANY.
58. Calcite. California.
59. Calcite. Shasta County.
60. Calcite; dogstooth spar. Lockport, NEW YORK.
61. Calcite. NEW YORK.
62. Concretion of carbonate of lime. From a cave.
63. Carb. of lime. California.
64. Red calcite. Amity Co., NEW YORK.
65. Calcite. MONTANA.

66. Calcite. Dittenburg, NASSAU.
67. Calcite. Heilbronn, GERMANY.
68. Calcite. Blaubeuren, GERMANY.
69. Calcite.
70. Calcite. DAKOTA.
71. Calcite. Dittenburg, Nassau.
72. Ruin marble. Vienna, AUSTRIA.
73. Calcite. Mount Diablo, California.
74. Carb. of lime.
75. Calcite. Lucerne, NEBRASKA.
76. Calcareous concretion. From Mammoth Cave, KENTUCKY.
77. Calcite. Pioche.
78. Calcite. New Windsor, CONNECTICUT.
79. Stalactitic calcite.
80. White carara marble.
81. Calcite. New Almaden, California.
82. Iceland spar.
83. Agaric mineral (mountain milk).
84. Alpen-Kalk (upper triassic limestone). Hallstock, AUSTRIA.
85. Calcareous concretions. Humboldt County, NEVADA.
86. Calcareous concretions. Humboldt County, NEVADA.
87. Marble.
88. Coral limestone. Lockport, NEW YORK.

ARAGONITE.

Which has the same composition precisely as CALCITE, viz.:
Carbonate of calcium, but is crystallized in a different form.

89. Aragonite. Suisun Bay.
90. Sprudelstein. Carlsbad, BOHEMIA.
91. Aragonite.
92. Aragonite.
93. Aragonite. Santa Clara Valley.
94. Aragonite. Suisun Bay.
95. Aragonite. Auvergne, FRANCE.
96. Aragonite. Owens River.
97. Aragonite; twin crystals. Bilin, BOHEMIA.
98. Aragonite on serpentine. From Hot Springs.
99. Aragonite on serpentine.

GYPSUM (SULPHATE OF LIME).

100. Gypsum. Lockport, New York.
102. Gypsum. Santa Rosa.
103. Gypsum. Corral Hollow, San Joaquin.
104. Fibrous gypsum. SWITZERLAND.
105. Gypsum. Bex, SWITZERLAND.
106. Fibrous gypsum. Rothenberg.
107. Gypsum. NOVA SCOTIA.
108. Gypsum. NOVA SCOTIA.
109. Gypsum. Rothenberg.
110. Gypsum.
111. Gypsum. Lockport, New York.
112. Satinspar (var. of gypsum). Santa Rosa.
113. Satinspar (var. of gypsum). Santa Rosa.
114. Gypsum. Bex, SWITZERLAND.
- 115 to 147, inclusive, specimens of gypsum.
148. Anhydrite (var. of gypsum, without water).
149. Anhydrite.
150. Gypsum. Santa Rosa.
151. Selenite (var. of gypsum, in flat, transparent crystalline plates), with crystals of dolomite (magnesia and lime); very fine.
152. Twin crystals of gypsum. Hall, Tyrol.
153. Twin crystals of gypsum. Hall, Tyrol.
154. Anhydrite. Berchtes Garden, GERMANY.

PHOSPHATE OF LIME.

155. Apatite.

FLUORIDE OF CALCIUM.

156. Fluor-spar (fluorite). Muensterthal, GERMANY.
157. Fluor-spar, with baryta. Freudenstadt.
158. Fluor-spar. Muensterthal.
159. Fluor-spar.
160. Fluorite in octahedræ.
161. Fluor-spar.
162. Fluor-spar. Wheal Seaton, Lamborne, ENGLAND.

163. Fluor-spar. Waldhut, GERMANY.
164. Amethyst-colored fluor-spar.
165. Fluor-spar.
166. Fluor-spar. Kaudern, GERMANY.
167. Fluor-spar. Gouverneur, NEW YORK.
168. Pale blue fluorite. Muensterthal, GERMANY.
169. Pale blue fluorite. Muensterthal, GERMANY.
170. Yellow fluorite, in cubes, with lime. Hartz Mountains.
171. Wine-colored fluorite, in cubes. GERMANY.
172. Violet fluorite. Dittenburg.
173. Violet fluorite. Dittenburg.
174. Fluorite. Muensterthal.
175. Fluorite in crystals of quartz.
176. Fluorite. Kaudern, GERMANY.
177. Fluorite. From Derbyshire, ENGLAND. (Fluorite is called "Derbyshire spar.")

See also under "Sodium," and sub. "Borates," Nos. 1, 2, and 7; Hydroboracite and Ulexite.

STRONTIUM.

1. Strontianite (carbonate of strontium). Clausthal.
2. Celestite (sulphate of strontium), with sulphur. Girgenti, SICILY. (This is a magnificent specimen.)
3. Celestite. Lockport, NEW YORK.
4. Celestite. Lockport, NEW YORK.
5. Fibrous celestite, colored blue. NEW YORK.
6. Strontianite, with siderite (carbonate of iron). Hartz Mountain.
7. Strontianite. SCOTLAND.

BARIUM.

1. Barite (baryta; sulphate of barium; heavy spar). Freudenstadt, HUNGARY.
 2. Barite. Freudenstadt.
 3. Barite. Hartz Mountain.
 4. Barite; bologniser stone.
 5. Barite.
 6. Barite. Coast Range.
 7. Barite.
 8. Barite. Santa Rosa.
 9. Barite.
 10. Barite. Colusa County.
 11. Barite. Friedenbach.
 12. Barite. Oesterberg.
 13. Barite. Honey Lake, NEVADA.
 14. Fibrous barite.
 15. Barite in rhombic tablets.
 16. Barite in zincblende and copper. St. Catalina Island.
 17. Sulphate of baryta. Hartz Mountains.
 18. Sulphate of baryta.
 19. Barite, with traces of copper.
 20. Witherite (carbonate of barium).
 21. Barite (baryta).
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SODIUM.

Eleven specimens of halite (rock salt; chloride of sodium).

BORATES.

1. Hydroboracite (borate of lime and magnesia, with water).
(This is under the head of SODIUM, simply because borax is a soda salt, and there is not a complete enough series to separate the borates from each other). Walker River, NEVADA.

2. Ulexite (borate of soda and lime). Walker River.
 3. Borax (borate of soda). Clear Lake, California.
 4. Borax. Clear Lake, California.
 5. Borax. Clear Lake, California.
 6. Boracite (borate of magnesia and chloride of magnesia)
crystals imbedded in gypsum. Linneburg, GERMANY.
 7. Ulexite. San Bernardino, California.
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SILICATES.

1. Heliotrope (var. quartz), polished.
2. Jasper.
3. Agates (eight pieces), carnelian.
4. Moss agates (six pieces).
5. Quartz pebbles, waterworn (eight pieces).
6. Sardonyx (var. quartz), polished (three pieces). PERSIA.
7. Silicified wood, polished.
8. Amethyst (var. quartz), (three pieces cut and polished, and
two crystals).
9. Fortification agate, polished; a fine specimen.
10. Chrysoprase (colored by nickel), polished (two pieces).
11. Opal (five pieces). HUNGARY.
12. Cairngormstone (smoky quartz), polished. SCOTLAND.
13. Chalcedony, cut and polished (two pieces).
14. Moss agates; fine, cut and polished.
15. Perfect quartz crystals (two).
16. Onyx.
17. Silicified shells, polished.
18. Jasper (red), polished.
19. Polished agate.
20. Agate. HUNGARY.
21. Rock crystal on shell limestone. Henenberg.
22. Quartz, or glass? (three, cut and polished).
23. Quartz crystal, with chlorite.
24. Chalcedony. IDAHO.

25. Common opal. Mokelumne Hill.
26. Amethyst (four pieces, cut and polished).
27. Quartz crystals in a bottle.
28. Common opals (Girasols; seven, diverse).
29. Garnets. ARIZONA.
30. Garnets, cut and polished (six).
31. Garnets.
32. Garnets in the rock. Almadin, Humboldt, NEVADA.
33. Garnets, cut and polished (five in bottle).
34. Beryl (aqua marine); nine pieces, cut and polished.
35. Beryl (aqua marine); four pieces.
36. Agate opal.
37. Smoky quartz.
38. Lapis lazuli. PERSIA. (See No. 101.)
39. Lapis lazuli. SIBERIA.
40. Kyanite (two crystals). Tyrol.
41. Orthoclase (four crystals). COLORADO.
42. Precious opal. Czerweniza, HUNGARY.
43. Tourmaline.
44. Fibrous tourmaline.
45. Tourmaline. Humboldt County, NEVADA.
46. Serpentine. NEW YORK.
47. Serpentine.
48. Garnet. California.
49. Datolite (silicate of lime). Bergen Hill.
50. Datolite (silicate of lime). Bergen Hill.
51. Datolite (silicate of lime). Bergen Hill.
52. Labradorite.
53. Obsidian. California.
54. Datolite. NEW JERSEY.
55. Datolite (boro-silicate of lime). NEW JERSEY.
56. Analcite (silicate of alumina and soda). SCOTLAND.
57. Analcite on nephelite (Na., K., Ca., Al., Si.). Oden Forest.
58. Analcite. Lake Superior.
59. Analcite. Faroë Islands.
60. Analcite in lava.
61. Analcite, with epidote. Lake Superior.
62. Apophyllite, with fluorite on dolomite.

63. Stilbite (silicate of alumina and lime). Faroë Islands.
64. Andreasbergolite. Andreasberg, Hartz Mountains.
65. Natrolite on pholerite. GERMANY.
66. Thomsonite. Bergen Hill, NEW JERSEY.
67. Natrolite. Hohentwiel, GERMANY.
68. Scolecite. Hohentwiel, GERMANY.
69. Natrolite. Hohentwiel, GERMANY.
70. Phillipsite. Hohentwiel, GERMANY.
71. Stilbite. Bergen, NEW JERSEY.
72. Heulandite. Fassa Valley, Tyrol.
73. Heulandite. Fassa Valley, Tyrol.
74. Thomsonite. Bergen Hill, NEW JERSEY.
75. Prehnite. Mountains of St. Gothards, SWITZERLAND.
76. Prehnite. Mountains of St. Gothards, SWITZERLAND.
77. Prehnite. Lake Superior.
78. Prehnite. Dunbarton, SCOTLAND.
79. Labradorite. LABRADOR.
80. Microclin. Fredricsvärn, NORWAY.
81. Orthoclase. Lake Superior.
82. Adular (orthoclase). St. Gothards.
83. Oligoclase. Ytterby, SWEDEN.
84. Obsidian. MEXICO.
85. Obsidian. California.
- 85a. Diopside.
86. Pele's hair. SANDWICH ISLANDS.
87. Garnet.
88. Dodecahedral garnet. SWITZERLAND.
89. Calcophonite (var. garnet), Monroe Co., NEW YORK.
90. Topaz on quartz. Schnehenstein, SAXONY.
91. Garnets. NEW JERSEY.
92. Andradite. Arendal, NORWAY.
93. Garnets. GERMANY.
94. Tourmaline. NORWAY.
95. Tourmaline. VERMONT.
96. Tourmaline in chloritic schist. Monro, CONNECTICUT.
97. Tourmaline. NORWAY.
98. Tourmaline in mica slate. CONNECTICUT.
99. Rubelite (red tourmaline). Mt. Mica, MAINE.

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100. Rubelite. MORAVIA, GERMANY.
 101. Lapis lazuli. PERSIA. Polished, and very fine. (See Nos. 38 and 39.)
 102. Muscovite (mica group). NEW HAMPSHIRE.
 103. Biotite (mica group).
 104. Muscovite.
 105. Muscovite. VERMONT.
 106. Green mica (muscovite), Monroe, NEW YORK.
 107. Lepidolite (lithia mica). VRADISKA, HUNGARY.
 108. Epidote. Placer County.
 109. Clintonite. Monroe Co., NEW YORK.
 110. Kyanite. Campo Longo, ITALY.
 111. Mica. NEW YORK.
 112. Chlorite on feldspar. Placerville.
 113. Tremolite (var. hornblende). NEW YORK.
 114. Clintonite. Amity, NEW YORK.
 115. Hypersthene. LABRADOR.
 116. Chloritoid. RHODE ISLAND.
 117. Chloritic quartz. Placerville.
 118. Talc.
 119. Soapstone. Wunsiedel, GERMANY.
 120. Rodochrom. PENNSYLVANIA.
 121. Sepiolite. ASIA MINOR.
 122. Serpentine. SILESIA.
 123. Chrome ochre. New Almaden.
 124. Soapstone.
 125. Spheue; titanite. See, also, under TITANIUM.
 126. Muscovite. Monroe Co., NEW YORK.
 127. Muscovite. Monroe Co., NEW YORK.
 128. Muscovite. VERMONT.
 129. Mica on feldspar and quartz.
 130. Mica on feldspar and quartz.
 131. Mica. NEW YORK.
 132. Mica. NEW JERSEY.
 133. Mica. NEW JERSEY.
 134. Mica. NORWAY.
 135. Mica. NORWAY.
 136. Serpentine, with amianthus. Philipstown, NEW YORK.

137. Silicified wood. Tuolumne County, California.
138. Andalusite. Linen, Tyrol.
139. Epidote. Fleimo, Tyrol.
140. Tourmaline (black shoerl), with siderite. NORWAY.
141. Tourmaline. California.
142. Tourmaline. VERMONT.
143. Tourmaline. MAINE.
144. Tourmaline. Elba.
145. Tourmaline. California.
146. Tourmaline. El Dorado County.
147. Rubelite (red tourmaline). Moravia, GERMANY.
148. Common tourmaline.
149. Tourmaline; black and green on quartz. Island of Elba.
150. Kyanite. Bradford, PENNSYLVANIA.
151. Kyanite. Newton, CONNECTICUT.
152. Topaz. Trumbull, CONNECTICUT.
153. Spheue; titanite.
154. Spheue; titanite, from St. Gothards, SWITZERLAND.
155. Rutile (oxide of titanium). SAXONY.
See, also, under TITANIUM.
156. Andalusite. Tyrol.
157. Chlorastrolite (var. andalusite). Fichtel Mountain.
158. Chlorastrolite. NEW HAMPSHIRE.
159. Staurolite. St. Gothards, SWITZERLAND.
160. Spheue (titanite) in calcite.
161. Obsidian. California.
162. Obsidian. California.
163. Obsidian. California.
164. Obsidian. California.
165. Obsidian. Mount Vesuvius.
166. Amazon stone (microcline). SIBERIA.
167. Amazon stone. SIBERIA.
168. Orthoclase (twins). Auvergne, FRANCE.
169. Orthoclase in porous quartz. BOHEMIA.
170. Orthoclase in quartzite. California.
171. Pitch stone (var. feldspar). ICELAND.
172. Orthoclase. NEW YORK.
173. Crystals of orthoclase. NEW JERSEY.

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174. Crystals of orthoclase. NEW JERSEY.
175. Amazon stone. Mursinbo, Ural Mountains.
176. Crystal orthoclase.
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178. Adular, with chlorite and quartz. St. Gothards.
179. Amazon stone (microcline). SIBERIA.
180. Orthoclase. NORWAY.
181. Pitch stone; volcanic glass; obsidian.
182. Laxoclase (var. feldspar). NEW YORK.
183. Sanidin; ice spar. Drachenfeldt am Rhein.
184. Petrocite (compact feldspar). Fahlun, SWEDEN.
185. Pipe clay; lithomarge. Sonora, MEXICO.
186. Lithomarge. Sonora.
187. Bole on clay.
188. Albite (var. feldspar). St. Gothards.
189. Leucite. Lacher Lake, PRUSSIA.
190. Hunyn in basalt. Lacher Lake, PRUSSIA.
191. Labradorite.
192. Kaolin.
193. Nepheline, or nephelite, in basalt. Kaiserthal, BADEN.
194. Clay, colored by iron. Virginia City
195. Garnet in calcite.
196. Garnet in calcite.
197. Allanite (epidote group). GERMANY.
198. Tourmaline.
199. Garnets. Cosumnes River, California.
200. Garnets. Cosumnes River, California.
201. Garnets in mica schist. Monroe Co., NEW YORK.
202. Garnet, with vesuvianite. BOHEMIA.
203. Garnet. Suhl, THURINGIA.
204. Garnet.
205. Garnet in a pebble of slate. California.
206. Garnet. California.
207. Garnet. NEW YORK.
208. Garnet. NEW JERSEY.
209. Garnet.
210. Garnet.
211. Garnet, with dioprite; calcite. Alps, PIEDMONT.

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212. Melanite garnet. Arendal, NORWAY.
 213. Garnets in a box.
 214. Garnets in a box.
 215. Garnets in eklogite rock. Tichtel Mountain, GERMANY.
 216. Kyanite. Chesterfield.
 217. Tourmaline in slate.
 218. Epidote. Amador County, California.
 219. Epidote and calcite. Manhattan Island, NEW YORK.
 220. Vesuvianite. Mt. Vesuvius.
 221. Vesuvianite in loose crystals. Mt. Vesuvius.
 222. Chondrodite.
 223. Chondrodite.
 224. Saponite. Monroe Co., NEW YORK.
 225. Garnets, with half opal from wood. BOHEMIA.
 226. Saponite. Monroe Co., NEW YORK.
 227. Pinite (var. topaz). Altenburg, SAXONY.
 228. Chrysolite. MORAVIA.
 229. Garnets. California.
 230. Allanite (var. epidote).
 231. Phenacite. Alsace, GERMANY.
 232. Olivin on basalt. Hegan.
 233. Spinel. Amity, NEW YORK.
 234. Pinite in granite. Auvergne, FRANCE.
 235. Zircon. Warwick.
 236. Zircon; spinel; graphite. NEW JERSEY.
 237. Zircon, with tourmaline. Monroe Co., NEW YORK.
 238. Zircon.
 239. Crystals of zircon.
 240. Garnets. SAXONY.
 241. Talc. St. Gothards, SWITZERLAND.
 242. Talc, indurated. Shenandoah, NEW YORK.
 243. Soapstone. Mariposa County, California.
 244. Steatite (soapstone). California.
 245. Steatite. California.
 246. Marmolite.
 247. Asbestos in serpentine. NEW YORK.
 248. Serpentine. NEW JERSEY.
 249. Serpentine, with magnesia. San Francisco.

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250. Serpentine. CHINA.
 251. Serpentine. CHINA.
 252. Chlorite. GERMANY.
 253. Serpentine. California.
 254. Picrolite (var. serpentine). Campo Seco, California.
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 256. Picrolite. California.
 257. Saponite.
 258. Talc.
 259. Zeolith (Thomsenolite).
 260. Chabazite.
 261. Merolith.
 262. Serpentine; chrysolite.
 263. Serpentine inclosed by aragonite.
 264. Chrome ochre. Johanngeorgensthal, BOHEMIA.
 265. Chloraastrolite. Lake Superior.
 266. Cerite. Bastnass, SWEDEN.
 267. Cerite. Ridderhyttan, SWEDEN.
 268. Serpentine. Grass Valley.
 269. Sepiolite.
 270. Serpentine. Hoboken, NEW JERSEY.
 271. Serpentine. Grass Valley.
 272. Saponite.
 273. Spinel, with graphite. Monroe Co., NEW YORK.
 274. Spinel (red).
 275. Spinel in calcite. Amity Co., NEW YORK.
 276. Spinel in graphite and calcite. NEW YORK.
 277. Spinel. Amity Co., NEW YORK.
 277a. Sapphire (corundum) in basalt. On the Rhine, GERMANY.
 278. Emerald (beryl). Salzburg, AUSTRIA.
 279. Chrysoberyl, with copper. RUSSIA.
 280. Chrysoberyl, with copper. RUSSIA.
 281. Crystal of chrysoberyl. SIBERIA.
 282. Tourmaline.
 283. Actinolite. California.
 284. Chrysolite.
 285. Petrified wood fiber. Placer County.
 286. Picrolite (var. serpentine).

287. Serpentine changed.
288. Serpentine, with a seam of amianthus. NEW YORK.
289. Actinolite. Alameda, California.
290. Bronzite. Kupferberg, near Bareuth, GERMANY.
291. Epidote. Amador County, California.
292. Hypersthene (silicate, magnesia, and iron).
293. Bronzite. Alameda.
294. Bronzite in serpentine. Hof, in BAVARIA.
295. Augite. Monroe Co., NEW YORK.
296. Augite in basaltic tufa. Kaiserthal, BADEN.
297. Augite crystal. Kaiserthal, BADEN.
298. Augite. NEW YORK.
299. Augite. Monroe Co., NEW YORK.
300. Augite. Monroe Co., NEW YORK.
301. Malacolite (green augite). NEW YORK.
302. Malacolite. NEW YORK.
303. Augite. Tyrol, AUSTRIA.
304. Bronzite. Alameda County, California.
305. Augite. NEW YORK.
306. Augite. NEW YORK.
307. Augite. NEW YORK.
308. Wollastonite. Schappach, BADEN.
309. Augite; mica. NEW YORK.
310. Augite in red calcite. SCOTLAND.
311. Hornblende crystal.
312. Hornblende crystal. NORWAY.
313. Augite (sahlite in red calcite). SCOTLAND.
314. Green cacolite. Monroe Co., NEW YORK.
315. Sahlite (var. hornblende). Monroe Co., NEW YORK.
316. Hornblende. IDAHO.
317. Cacolite (var. hornblende), with chondrodite (silicate magnesia). Amity, NEW YORK.
318. Hornblende in basalt. Kaiserthal, BADEN.
319. Pargarite (var. hornblende). Finland, RUSSIA.
320. Pyroxene. Monroe Co., NEW YORK.
321. Pyroxene; epidote; feldspar.
322. Bronzite in serpentine. Alameda County, California.
323. Hornblende in green mica. Andimin, VERMONT.

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324. Anthophyllite. NEW YORK CITY.
 325. Actinolite. Alameda.
 326. Actinolite (var. hornblende). MASSACHUSETTS.
 327. Tremolite, with brucite. NEW YORK.
 328. Actinolite. Mt. St. Gothards.
 329. Actinolite. Alameda.
 330. Tremolite (var. hornblende). SWITZERLAND.
 331. Actinolite. East Litchfield, CONNECTICUT.
 332. Actinolite. Alameda.
 333. Asbestos. Iowa Hill, Placer County, California.
 334. Hornblende. St. Gothards.
 335. Cumingtonite (hornblende var.). MASSACHUSETTS.
 336. Asbestos.
 337. Asbestos. California.
 338. Actinolite. St. Gothards.
 339. Asbestos.
 340. Asbestos. NEW HAMPSHIRE.
 341. Spodumene. MASSACHUSETTS.
 342. Spodumene. St. Gothards.
 343. Spodumene. Tyrol.
 344. Beryl, crystallized. Fichtel Mountain, BAVARIA.
 345. Rhodonite (silicate manganese).
 346. Beryl. Acworth, NEW HAMPSHIRE.
 347. Beryl. NEW HAMPSHIRE.
 348. Beryl. Island of Elba.
 349. Tremolite in dolomite. Campo Longo.
 350. Blue beryl on fluorite.
 351. Emerald (precious beryl). Salzburg, GERMANY.
 352. Emerald on mica slate. Salzburg.
 353. Beryl. Acworth, NEW HAMPSHIRE.
 354. Asbestos. California.
 355. Tourmaline.
 356. Tourmaline.
 357. Epidote.
 358. Hornblende (coarse). Monroe Co., NEW YORK.
 359. Serpentine in course of decay. Fishkill, NEW YORK.
 360. Metasite (var. serpentine). California.
 361. Metasite. Napa Valley, California.

362. Celadonite (green earth decomposed); augite. Fasson Valley, Tyrol.

Together with one hundred and forty specimens of agate, onyx, chalcedony, jasper, etc., cut and polished, which are not separately numbered.

CARBON.

1. Graphite. SIBERIA.
2. Graphite. NEVADA.
3. Graphite. El Dorado County, California.
4. Graphite. Tuolumne County.
5. Graphite. Guaymas, MEXICO.
6. Graphite. Sonora, MEXICO.
7. Graphite. NEVADA.
8. Graphite. Ticonderaga, NEW YORK.
9. Graphite.
10. Graphite. VERMONT.
11. Graphite intersprinkled in earthy matter. PERSIA.
12. Impure graphite.
13. Graphite. MEXICO.
14. Graphite. SIBERIA.
15. Graphite. NEW YORK.
16. Graphite, with hornblende. NEW HAMPSHIRE.

HYDRO-CARBONS.

17. Succinite (amber). Mecklenburg.
18. Succinite. SOUTH AMERICA.

SULPHUR.

1. Sulphur. Mount Ætna.
 2. Sulphur. Mount Ætna.
 3. Sulphur. Mount Ætna.
 4. Sulphur. Lake County, California.
 5. Sulphur. Mount Ætna.
 6. Sulphur. Hot Springs, Humboldt County.
 7. Sulphur. Hot Springs, Humboldt County.
 8. Sulphur, with calcite.
 9. Sulphur. Humboldt County.
 10. Sulphur. Humboldt County.
 11. Sulphur. Napa County.
 12. Sulphur. SOUTH AMERICA.
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MISCELLANEOUS.

1. Petrified wood. Lake Bigler.
2. Petrified wood, from a depth of eighty feet.
3. Partly petrified drift wood. Owens River, California.
4. Petrified wood. Placer County.
5. Opalized wood. Indian Diggings, El Dorado County.
6. Petrified wood. California.
7. Petrified wood. Calaveras County.
8. Splinter of cedar (?) wood petrified. Plumas County.
9. Petrified wood. Calaveras County.
10. Polished specimen opalized wood, from Lower Permian;
Hilbersdorf, SAXONY.
11. Opalized wood. Nevada County.
12. Polished pebble, probably a wood-petrification.
13. Petrified wood. El Dorado County.
14. Holzstein. Petrified wood, polished. Antigua, WEST INDIES.
15. Lignite. Cannel coal. PENNSYLVANIA.

16. Petrified wood (probably a cedar). NEVADA.
17. Petrified wood. Mokelumne Hill, Calaveras County.
18. Infusorial earth. NEVADA.
19. Infusorial earth. NEVADA.
- 19a. Infusorial earth. (Locality?)
20. Silicified wood, polished. PRUSSIA.
21. Lava (obsidian), from the surface over which it flowed.
22. Lava (obsidian), from the surface over which it flowed.
23. Pumice stone. Mount Vesuvius.
24. A bowlder of lignite. American River, near Brighton.
25. Natural deposit (siliceous and calcareous) from spring water. Cut from "Natural Bridge," Calaveras County, California.
26. Slag from lead furnace.
27. Lava. SANDWICH ISLANDS.
28. Basaltic rock, containing crystal of "glimmer" (mica). Eifel Mountains.
29. Bituminous shale. Elko, C. P. R. R.
30. Concretion from bed of American River.
31. Lava. SANDWICH ISLANDS.
32. Lava. Sonora, MEXICO.
33. Trap-rock (black-rock) stained with copper. Humboldt, NEVADA.
34. Lava. Pilot Hill, California.
35. Trap-rock with copper. Lake Superior.
36. Cement. San Joaquin.
37. Lava. SANDWICH ISLANDS.
38. Diluvial tufa (lime). Cannstadt.
39. Bituminous shale (45 per cent volatile). New Elko, C. P. R. R.
40. Iron conglomerate. Lake Superior.
41. Trachyte. Humboldt, NEVADA.
42. Decayed granite. Havre, FRANCE.
43. Stalactite.
44. Nagel-flue, so called. SWITZERLAND.
45. Conglomerate (jasperoid pebbles).
46. Keuper sandstone, containing streaks of galena. Oesterberg, near Tuebingen.

47. Micaceous schist with copper. Black shaft, Pioche Ledge, Meadow Valley, Lincoln County, NEVADA.
48. Sandstone. C. P. R. R.
49. Talcose rock, with copper.
50. Decaying granite with talc and clay. Muerg Valley.
51. Portion of stalactite from Mammoth Cave. KENTUCKY.
52. Lias limestone in slaty strata, with pyrites and mica.
53. Jurassic limestone. Urach.
54. Coarse sandstone with galena.
55. Clay, bearing impressions of leaves. Table Mountain, Calaveras County, California.
56. Clay-nagel-stein from the Keuper. Stuttgart.
57. Massive calc-spar from the Keuper.
58. Limestone with chloride of silver. White Pine, NEVADA.
59. Clay, bearing impressions of leaves. Calaveras County.
60. Upper layer of the Keuper, containing scales and teeth of fish, coprolites, etc. Near Tuebingen.
61. Granite. New York Island.
62. Fossil coral, polished.
63. Petrification. ENGLAND.
64. Fossil corals. Near Davenport, Iowa.
65. Fossils.
66. Clay, with impressions of leaves. Table Mountain, Calaveras County.
67. Fossil wood. Pine Grove, NEVADA.
68. Fossil wood. Calaveras County, California.
69. Serpentine. San Francisco.
70. Calcareous deposit from running water, with impressions of leaves thereon. Urach Valley.
71. Conglomerate of fossils. Treasure Hill, White Pine, NEVADA.
72. Fossil wood from the Lias.
73. Conglomerate of fossil shells. White Pine, NEVADA.
74. Upper layer of Keuper sandstone, with fossils. Tuebingen.
75. "Roth-tod-liegendes," polished. Obenwald, SAXONY.
76. "Roth-tod-liegendes," polished. Hilbersdorf, SAXONY.
77. Conglomerate of jaspers in the Red-dead-layer. Murg Valley.
78. Conglomerate of fossil shells. Near Henney's Pass, NEVADA.

79. Conglomerate with fossils. Silver Peak, NEVADA.
80. Conglomerate.
81. Phenolite (clinkstone), with natrolite and fibrous zeolite. Hohentwiel.
82. Keuper sandstone. Nests of clay and iron. Feuerbach.
83. Fossil wood. Elkhorn, near Richmond, INDIANA.
84. Oolite. Silver Peak, NEVADA.
85. Tufa (lime and sand) bearing impression of leaf. Cannstadt.
86. Portion of pile, riddled by the *Teredo navalis*. From Front Street, San Francisco. This has been put down twenty months only.
87. Fossil wood. Table Mountain, Calaveras County.
88. Serpentine on quartz, with pyrites. Pilot Hill.
89. A curiosity of the smelting furnace. "Lead droppings."
90. Ore and flux from furnace. Montezuma mine, Humboldt, NEVADA.
91. Slag from furnace. Montezuma mine, Humboldt, NEVADA.
92. Opalized wood. El Dorado County.
93. Mixed metals (zinc, lead, antimony, and silver), from furnace. Montezuma, Humboldt County, NEVADA.
94. Terra miraculosus (?). Freiberg.
95. Antimonial silver from Paranagel. NEVADA.
96. Iron shavings.
97. Borate of lime, from Desert Spring, San Bernardino County, California.
- 97a. Boracic acid, manufactured from borate of lime, by F. Formales.
98. Refined borax, from Am. Borax Company, Churchill County, NEVADA.
99. Iron ore, from which so called metallic paint is made.
100. Marble. NEVADA.
101. Lava. Vesuvius.
102. Five specimens of polished silicified woods, from SAXONY; with labels giving the species of plant to which the woods severally belong.
103. Massive copper pyrites. Copperopolis.
104. A piece of rock from the summit of Fisherman's Peak—the highest peak of the Sierras in California.

In addition to these numbered specimens, there are several fossils (seventy-five boxes or trays, some containing one and others three and four specimens), principally *Ammonites*, some *Belemnites*, Trilobite, etc. Some of these are labeled from establishment of Dr. Kranz in Bonn; others have slips attached with names in pencil, while some are without labels. It has not been thought advisable, in the absence of a skilled paleontologist, to interfere with these. They have therefore been placed together, with or without names, for future revision.

There are also, in addition to these numbered and named specimens, many more, both of rocks and ores, which are stored in drawers and may be available for exchanges. In addition to these, there are many trays of rock-specimens, accompanied by the surveyor's (or geologist's) note on a tag, showing the locality. It is presumable, from a cursory examination of a few of these, that they are from cuttings, etc., along the line of Central Pacific Railroad. They have been relegated to drawers, as not possessing any interest to the general sight-seeing public.

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